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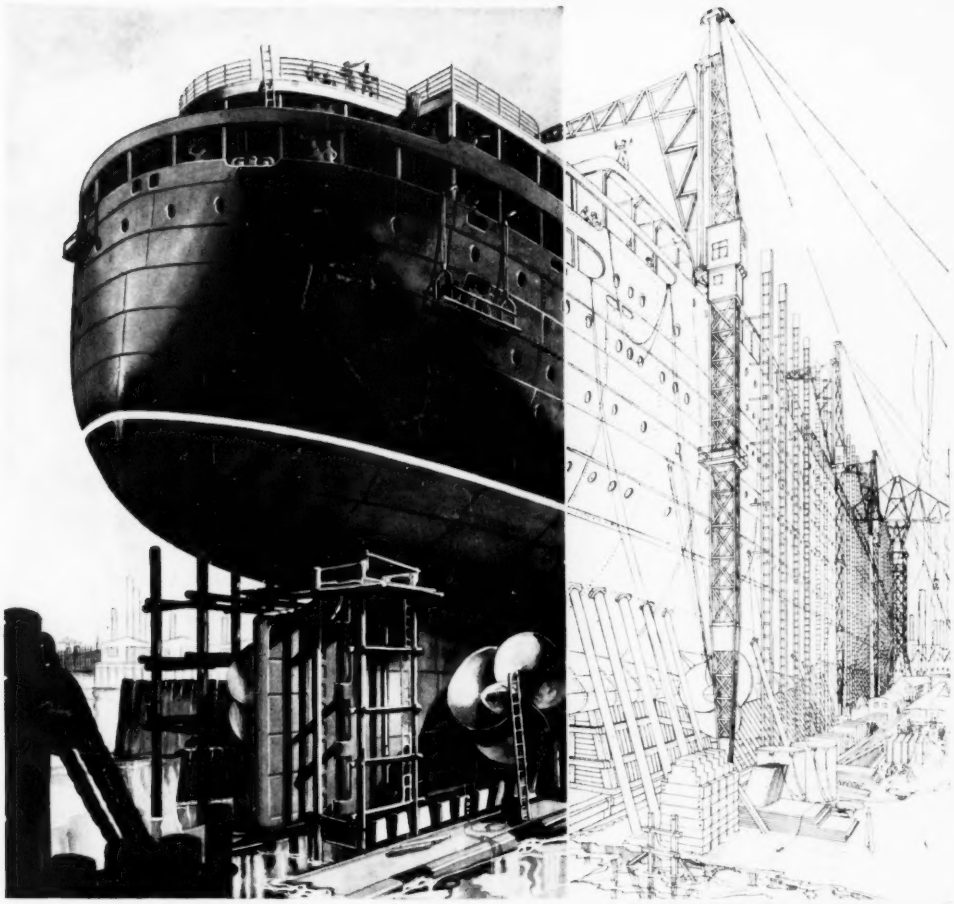

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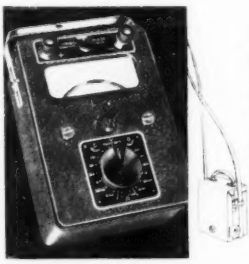

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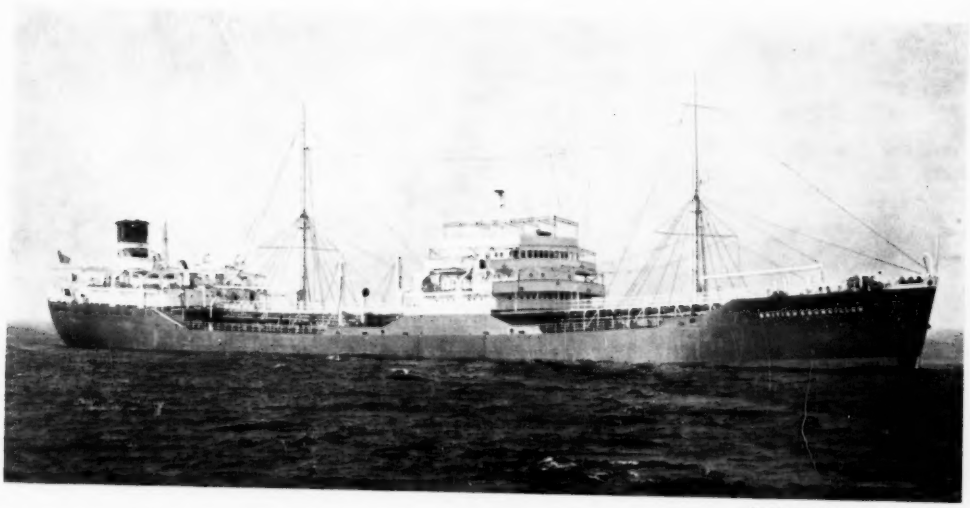

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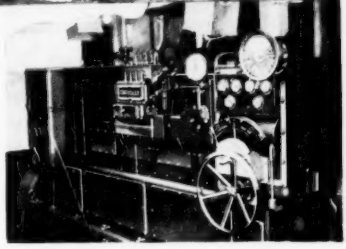

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RANGE DISCRIMINATION	
The set shall indicate clearly on the largest scale the presence of two small objects in line when these are 100 yards apart.	A 40 yard gap was visible between two buoys laid on the same bearing spaced 100 yards apart.
BEARING ACCURACY	
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THE SHIPPING WORLD

FUNDAMENTAL FACTORS IN WORLD SHIPBUILDING

SOME YEARS ago it became quite a fetish of the big business man, in many parts of the world, to have on his desk, or at a convenient height on the wall, little cards on which were printed short slogans such as "Do it Now," "Tomorrow Never Comes," "Time is Money," and other key phrases, the ready sight of which conduced, it was thought, towards commercial success. As a business aid, it was perhaps over-rated and one is reluctant to revive the practice, but at the same time, any attempt to take an objective view of the international maritime industries tempts the critical observer to wish that at every conference of the world's statesmen, and every cabinet meeting in each country, there could be displayed a card saying "Cheap Shipping is in *Everyone's* Interest." For this is the fundamental factor in world shipping, and therefore shipbuilding. Every country must trade with others, and the more economic the consequent transport of goods can be made, the higher the level of world trade can become. This would appear to be obvious, but is lost sight of all too often. For example, not even the most prejudiced American spokesman would contend that without earnings from United States ships the balance of that nation's trade would be upset. Yet there are building subsidies, operational subsidies, reservations of coastal trade, and hidden subsidies, such as the attempt to restrict one-half of Marshall Aid cargoes to the American flag, the net effect of the latter being to curtail the dollars which European countries have to spend on American goods.

One could cite the attempts now being made to encourage Australian shipbuilding, the not too successful attempts to build ships in India, and other examples of protection in one form or another for shipbuilding in various countries. But it may be better to go to the root of the matter. The position is that wherever these practices exist they have been instituted by some Government as part of their national policy at the time and have no relation with a desire to free world trade, that is to allow those who run ships more economically than others, and those who build the cheapest and best ships, to provide the sea transport which all the world requires, that is, the shipping which costs least, in raw materials, manpower, and financial resources. It would be possible for Great Britain, at fantastic cost, to transform parts of the country into large sheep farms, thereby reducing the demand for Australian wool, but there are no protagonists of such a proposal, nor for clearing large tracts of the country so as to be independent of American wheat, if that were possible. In the division of world labour we recognise that in the production of primary goods, other countries have considerable natural advantages and that to compete in these fields raises the world cost of the products. It cannot too often be reiterated that exactly the same principle applies to world shipping and shipbuilding; the possible effects of subsidised or protected American, Australian, Italian, German, Japanese, and French shipbuilding might conceivably be disastrous not only to this country but to world trade, because of the consequent increased cost of shipping.

There is all the more reason, therefore, to regret that under the Truptil plan, recently announced, France is to join in this race of providing artificial aid to shipbuilding. The aim, it is announced, is to enable the French yards to build at prices approximately equal to those of foreign yards, and it will take the form of direct aid, varying in amount according to the type and size of ship built, and indirectly by exempting materials and machinery for ships from certain taxation. British shipowners and builders will have every sympathy with their French colleagues' resentment against high taxation; we are not without some mild form of disapproval at the incidence of our own taxation. But to give a preference to one industry, as a result of which the other French industries must in the end pay more to provide the same return, seems illogical. This kind of thing, and not only in France, can only lead to one result, that is, similar protective measures in this country. The word subsidy is anathema to the British owner and builder alike and even more now than before the war, with certain politicians looking for opportunities to annex shipbuilding, but it must be made clear that the British shipping and shipbuilding industries will not be allowed to die because of unfair competition.

Current Events

The Challenge of 1951

THE NEW YEAR will be one of continued inflation owing to the upward movement of wages as well as the cost of raw materials in all the maritime, as well as other, industries. As from 80 to 90 per cent of the cost of a new ship represents labour charges, shipowners will have to meet bigger bills at a time when the Chancellor of the Exchequer is taking a heavy toll of the sums which should be available for building up the strength of British shipping, which has still too large a proportion of uneconomic tonnage. Great hopes are entertained of the investigation of the Tucker Committee, but its report is not likely to be available in time for the coming Budget, the general scheme of which must already have been settled. So shipowners are not likely to obtain early relief from the heavy burdens which they are now supporting. Unless some concessions are made, unemployment in all the maritime industries must result in due course, if not immediately, and that is the best hope so far as Government policy is

concerned. Ministers, with their ears to the ground in view of the coming General Election, will not risk any rise in the number of men, as well as women, without work. The Minister of Transport is, unfortunately, not a member of the Cabinet, but it may be assumed that he, taking the long view as, to his credit, he has always taken since he assumed office, will not be backward in reminding the Prime Minister and his colleagues, not only of the danger of unemployment, when the present pressure of work is over, but of the essential part which shipping plays in war as well as in peace. As a community of islanders, we cannot afford to let our tonnage shrink below the minimum needs of war or become inefficient in view of the increased competition on the trade routes, for Germany and Japan will be rivals of whom serious account will have to be taken in coming months. It would, moreover, be the height of folly to risk any decline in the visible and invisible exports of the maritime industries at a time when our favourable trading balance is likely to suffer owing to the demands of the rearmament programme.

Universal Inflation

IT WOULD BE, however, an error to assume that Great Britain is the only country which will suffer from inflation this year. It will be almost universal owing to the increased cost of raw materials and the rise in wages all over the world, though probably less in German and Japan than in other countries, for these peoples are conscious that their salvation lies in hard work for long hours at much lower wages than will be paid elsewhere. It is one of the gravest factors in the outlook that trade unionists generally are still clamouring for higher pay packets on the assumption that they can be paid out of profits. They ignore the obvious fact that wages govern prices. The investor is today receiving a far smaller return for the risks he runs than ever before in our history. That is an unhealthy condition for, in the last analysis, the future of this country depends on prudent finance, those who save being encouraged to advance capital thus providing land, buildings and plant which are essentials of all industries, as well as ships. If we continue to spend more than we earn we shall suffer defeat in competition with other nations, which have not been infected with the bug of Socialism. The Welfare State may be a desirable ideal, but if we spent on the social services more than we earn by the sweat of the brow, we shall find that we have entered on a hard road and will have more and more difficulty in paying for our raw materials and the food which we must obtain from overseas by the only form of transport available—ships, which can carry our cargoes cheaply and efficiently if shipowners are not driven off the seas by too heavy taxation. In the New Year we shall have to work hard if we are not to sink into the Slough of Despond, from which it may prove difficult to rise. Either we remain a Great Power, which means that we must maintain all our maritime industries in strength and efficiency, or we shall have to surrender all the victories in the economic field which our forefathers won for us in the hard way—working long hours for reasonable pay and saving all they could so as to provide for the unknown demands of tomorrow. We have exhausted the stores of wealth in this country and overseas which they created, and now, with heavy war debts on our shoulders, we must settle down to the task of rebuilding what war and crazy economies have torn down.

Plan for Shipyard Apprentices

THE RECENT announcement that a scheme has been drawn up for the recruitment and training of apprentices to shipbuilding and shiprepairing firms by the National Joint Apprenticeship and Training Committee is a welcome indication that the industry is prepared to meet the changed conditions of the postwar years. Both the Shipbuilding Employers' Federation and the Confederation of Shipbuilding and Engineering Trade Unions are represented on this committee, which was set up under the apprenticeship agreement reached within the industry in October, 1947. The scheme prepared recognises the two main factors concerned, first, that in times of full employment, boys will enter only industries in which they see signs of a promising future, and second, the need for ever higher standards of technological and craftsmanship education. The general principles which should govern the recruitment and training of apprentices are set out, while specimen training schemes for apprentices to the main trades in shipbuilding and repairing are given, on a basis on which individual firms can frame their own plans.

Local Joint Committees

THOUGH the scheme will be controlled by the National Committee already mentioned, local joint committees will be responsible for administration in their own districts and these committees, as well as the firms concerned, will work closely with headmasters of schools in their areas, the practical cooperation including the arranging of talks on the industry and visits to shipyards and repair establishments for boys in their last year at school. The National Committee has been wise not to lay down a rigid code to be observed in all parts of the British Isles, since many yards already have excellent schemes in being and have had for a long time past. The practical effect of the new scheme will be that these individual plans will be coordinated with a national effort befitting such important industries. If a minor criticism may be made, it is that it is not sufficient merely to give talks to boys about shipbuilding or repairing, or to visit building and repairing yards; boys should be given details of the maritime industries as a whole and should see ships unloading, turbines on test, and the making of steel as well as the laying of keels and docking for repair. There might also be, with advantage, some occasional contact with apprentices being trained to go to sea and to build the engines and make the equipment which ships need. Boys must be taught not only to build and repair ships, but to be part of the whole team of maritime workers.

Owner's Agents

IT IS believed that many shipowners of late, particularly in the coal and coke trade, have conceded the demands of shippers or receivers of cargo that they should be granted the agency of the vessel. The Baltic & International Maritime Conference, in its latest *Circular*, again warns shipowners against the dangers and disadvantages of yielding the right to appoint their own agents. One of the many reasons why the Conference finds the new French phosphate charterparty "Africanphos 1950" so unacceptable is the clause which states that the vessel shall be consigned to shippers at the loading port. Under such charterparties as the "Baltcon" there is no such stipulation which obliges owners to accept shipper's agents, and it stands to reason that an independent agent, often known to the owners and appointed to look after a vessel's interests, will be in a position to give owners better service than an agent who is employed by the shippers or receivers of the cargo. When questions arise with regard to trimming, demurrage, difficulties with the crew, or other disputes, agents known to the owners, particularly if they have given service in the past, are more likely to inspire confidence. Cases have been known when an owner, after he has appointed shippers as agent, and a subsequent dispute has arisen, has been compelled to appoint his own agent to render service to masters and advise and help in regard to demurrage claims.

New German Coal Charter

THE Documentary Council of the Baltic & International Maritime Conference was surprised to receive recently a copy of a new charterparty, referred to as the "German Coal Charter 1950," prepared by the German coal concern Deutscher Kohlen-Verkauf, since

in 1949 it had been agreed that the negotiations for a new German coal charter between the German Shipowners' Association and the coal concern would be postponed until the Polish coal charter had been established. This, although now acceptable in principle, has not definitely been accepted. A copy of the German charterparty had also been sent to the Chamber of Shipping of the United Kingdom, with a note to the effect that a different form of charter would be forwarded in due course for shipments of German coal to Scandinavian and Baltic countries. It transpires that the German Shipowners' Association had not been consulted in regard to this new charter, and it is now embarking on negotiations with the Deutscher Kohlen-Verkauf. The outcome of these representations will be awaited with some interest, since it is understood that the German coal concern's draft contained no amended Jason clause, no both-to-blame collision clause and no strike clause; on the other hand, there were provisions for charterer's or shipper's and consignee's agents, and 2 per cent address commission, plus other commissions. The Baltic Conference, and the Chamber of Shipping, render invaluable service to shipowners of all flags in resisting such inequitable terms which shippers and charterers everywhere are trying hard to impose. Shipowners who accept them do a great disservice, not only to themselves, but also to their colleagues and competitors.

Results of the Torquay Conference

THE CONFERENCE on tariffs and trade at Torquay, which ended last month, had some tangible results to show for its exertions. In addition to extending the existing system of tariff relaxations for a further three years to January 1, 1954, and agreeing to the accession to the system of a number of other Governments wishing to join, it was able to draw up a code of standard practices for import and export restrictions and exchange controls. This consists of nine clauses, but the whole thing can be summed up adequately in a single sentence: "Governments shall at all times treat commercial enterprises with due courtesy, and with a proper consideration for their interests." In practice, however, there is no doubt that it is better to have matters expressed more specifically. The code is not directly binding on Governments—so few things are nowadays—but the member Governments agree to do their best to apply these standards to their own procedures. If a trading organisation is affected by some Governmental restriction or control, and if it is felt that this is contrary to the new code of practice, the ability to quote the exact clause being infringed may be worth a good deal. The importance of the code, however, lies not so much in its extent as in the pointer which it gives for the future, showing that the principle of free and multilateral trade, so important to Great Britain, still commands adherence despite the many indications to the contrary of recent years. Before this conference the countries acceding numbered 32, and accounted for 75 per cent of world trade; seven more countries are expected to join as a result of the present conference.

British Shipbuilding Output

RECORDS of the vessels delivered from British shipyards during December are not yet complete, but it is already clear that last year's total of 1,361,000 tons gross (according to the Central Statistical Office) will be reached, if not exceeded. The position at the end of November, for which figures have been released, was 1,245,632 tons gross, compared with 1,225,403 tons at the end of November, 1949. Since then, according to records so far received by THE SHIPPING WORLD, some 110,000 tons gross of merchant shipping has been delivered, of which nearly half consists of tankers. The growing proportion of tankers to tonnage of other types is reflected in the declining number of ships which make up the total tonnage. At the end of November 273 vessels made up the total tonnage, which was slightly higher than the previous year's total, when 303 vessels, or 30 more, were completed. During November alone 22 new vessels were delivered, totalling 149,331 tons gross, of which six tankers accounted for no less than 78,351 tons gross. Orders for tankers still dominate the scene, as Mr. Ramsay Gebbie, president of the Shipbuilding Conference, has revealed in an article in *Lloyd's List Annual Review*. He stated that at September, 1950, the order book stood at 3,312,000 tons gross, compared with 3,503,000 tons gross twelve months previously, and 3,121,000 tons in September, 1946. Five years ago one-fifth of the orders received were for passenger ships and passenger and cargo liners, one-fifth for tankers and one-third for cargo liners. Of the orders booked in the first nine months of 1950, however, which exceeded 1,000,000 tons gross, one-half consisted of tankers, one-quarter of cargo liners, and only one-twentieth of passenger ships and passenger and cargo vessels. The position may have changed somewhat in the last three months, on the other hand, as there has been a considerable increase in the number of cargo liners and tramps ordered recently, and the total of orders placed during the year may well reach 1,500,000 tons gross.

Sleeve Valve Diesel Engine

IT MUST be a difficult task for an author, charged with giving one of the Andrew Laing lectures before the North East Coast Institution of Engineers and Shipbuilders, to attain the same high standard of technical interest achieved by his predecessors, for this series of lectures provides a unique collection of reviews of shipbuilding and engineering. The author of the nineteenth lecture in this series, however, Sir Harry R. Ricardo, certainly maintained this high level with his paper "The Sleeve-Valve Diesel Engine," given before the Institution last month. The salient points of a research extending over a period of twelve years into the behaviour and functions of the single sleeve valve were described, and no attempt was made to cover up certain failures which occurred. Though the primary objective of this research was the development of high powered petrol aero engines, the application of the sleeve valve to high-speed diesel engines was also investigated and found to confer some important advantages from the viewpoints of thermal efficiency and durability, and the author made a plea for more attention to be given to the sleeve valve in diesel engines, especially in the larger powers. That the one-time prejudice against the sleeve valve engine has disappeared was revealed in the statement by the author that the aggregate power of all the sleeve valve engines built in Great Britain during the past ten years—between 200 and 250 million horsepower—far exceeded that of all the world's production of marine or industrial diesel engines. Sir Harry referred to sleeve valve diesel engines designed by his company and produced by Peter Brotherhood, Ltd., in 1927, for the Anglo-Saxon Petroleum Co., Ltd., most of which were still giving excellent results after 23 years' service. It was admitted that mistakes were made in the design, but these could now be avoided, while the fact that the author had never yet heard of a single instance of a sleeve or cylinder having to be rebored or replaced, though many sleeves had between 50,000 and 60,000 hours to their credit, indicated a service performance which has never been approached by any type of poppet valve engine.

Radar Plotting

THE NECESSITY to use some form of plotting procedure with radar, to avoid collision when crossing the track of another vessel at sea, has often been emphasised, but it is by no means always done. A new form of plotter, produced in the United States, was demonstrated recently at the annual meeting of the Marine Section of the National Safety Council, in Chicago, and it has since been reported to have been adopted by a number of steamship and tanker companies. In determining whether or not two ships are on collision courses, the

basic thing to be done is to determine whether the bearing of one from the other is remaining constant: if it is, then a collision will occur unless some alteration of course or speed is made. The constancy or otherwise of this bearing may be determined as easily by radar as it can be in clear conditions by eye. No plotter is necessary, the use of the bearing cursor on the radar set being sufficient. When this has been done, however, the avoiding action to be taken must be decided, and this will depend to some extent on the course and speed of the other vessel. When navigating visually, these can be judged by eye with sufficient accuracy, but an estimate of them cannot be obtained so simply from a radar screen, which gives no indication of the angle of the approaching ship. It is to give this information that some sort of plotting board is of great assistance. Opinion has been divided as to whether this board should be of the simplest sort on which relative bearings only are plotted, or whether a true plot of both ships should be kept. The work of plotting on the former is simpler, but the relative speed of approach of the other vessel must be calculated from it before her true course and speed can be found. With the latter, if the plotting is done correctly both are more or less self-evident. The new American method gives a true plot, and it seems on the whole that this type is preferable.

Another Quick Freeze Trawler

THE ANNOUNCEMENT that Chr. Salvesen & Company, of Leith, are to build a further quick freezing factory ship indicates that their experience with the *Fairtree* has convinced them of the success of such units. John Lewis & Sons, Ltd., of Aberdeen, are to build the vessel, which will be a stern operating trawler, 240 ft. in length, incorporating many of the ideas and patents involved in the *Fairtree*. The machinery will be of the new Lewis-Doxford type, manufactured in Aberdeen by Lewis under licence from the Doxford organisation. The *Fairtree* is a converted minesweeper of the *Algerine* type, with whaleback stern, fish cleaning deck, special mechanically-operated trawls, quick freezing equipment and a special fishhold. Since her acquisition by Salvesen's she has been working in Newfoundland waters and has landed heavy catches regularly at Glasgow. The advantage of the vessel lies in her ability to make long-distance trips, to process within an hour of catching and to land packed high grade fish at a Scottish port ready for distribution or for holding against a better market. There has been repeated advocacy by leading scientists in Scotland of quick freezing at sea as the best prospect for the revival of the industry, but to date the *Fairtree* has been the only commercial unit to tackle this work, and apparently to achieve financial stability, if the order for a further unit can be taken as an indication of this.

New Plastic Material

MENTION was made in an earlier issue of THE SHIPPING WORLD of the introduction of a new plastic material by the makers of "Holoplast" laminated structural materials for ships and other purposes, and some details of this addition to the plastics now available, under the name "Corroplast," have now been supplied. It is a phenol-formaldehyde laminate, designed and produced in corrugated form to provide a convenient form of roofing material. The principal advantages claimed are that it does not corrode, does not spread flames, and, though extremely light in weight, can be walked upon in safety. The process of manufacture is similar to that used by the makers for their structural materials and linings, and consists of processing paper to give a hard and durable laminated plastic, though in this case the method of manufacture was complicated by the need to pre-form the corrugated section of the sheet before processing, the machinery used for transforming the flat sheets of paper into corrugated sheets, inevitably of narrower dimension than the flat sheets, being of a particularly ingenious type. The weight quoted is only about 13 oz. per sq. ft., while sheets of dimensions 8 ft. by 4 ft. $\frac{3}{4}$ in. can be provided, the large width making it possible to economise in fixing arrangements when used for roofs or sides of workshops. The material can be obtained in a wide range of colours, though dark brown is recommended for industrial atmospheres, while as the colours are an embodied part of the process of manufacture and are integral with the plastic sheets, no maintenance is required. The thermal properties seem to be worth some special consideration as it has been calculated that a building 200 ft. by 30 ft. in area roofed with "Corroplast" would save more than 10 tons of coal per annum in space heating as compared with the use of a corrugated iron roof.

The Stability of Ships

IT MAY seem strange that while there have been in existence in various countries for more than 100 years regulations designed to safeguard ships, their crews and cargoes, the requirements for the stability of ships have been, apparently, very elastic and ill defined. It is true that until the 1948 International Conference on Safety of Life at Sea, it had not been thought necessary to insist that cargo ships should be inclined on completion to determine the metacentric height in the light condition; and it is also the case that though the 1929 International Conference called attention to the need for considering stability of passenger ships insofar as it was affected by hull damage and listing owing to deck, inner bottom or longitudinal bulkhead subdivision, no attempt was made to establish any suitable standards of stability. Even more important, though the Bulkhead Committee produced an excellent method of ensuring a predetermined standard of safety against foundering because of sinking and trim under certain assumed conditions of damage, the stability in such damaged conditions was left to be investigated by shipdesigners and official technicians rather than insisted upon by international agreement. The 1948 Conference introduced stability regulations to ensure that a vessel shall be able to withstand the listing effect of damage as well as requiring that new cargo ships be inclined before entering service and that adequate stability information be supplied to the master of the ship. Until recently there was no legal obligation on either owner or builder to provide such information, although in fact almost every British owner and builder did so, the information being based on an inclining test for that ship or a similar vessel. For those wishing to have available a useful review of what is required under the new Convention, and what information the master of a ship needs, it may be noted that a useful paper entitled "Standards of Stability for Ships in Damaged Condition," was read by Mr. Vito L. Russo and Mr. James B. Robertson before the American Society of Naval Architects and Marine Engineers on November 10. In the last resort, the seaworthiness of any ship must depend on the training and ability of the master, but there is much that the ship designer and naval architect can do to assist him.

THE SHIPPING WORLD ANNUAL REVIEW NUMBER

The SHIPPING WORLD for January 10, 1951, will be a specially enlarged Annual Review Number. In addition to the reviews of activities in the various branches of the maritime industries at home and overseas by expert correspondents, the Annual Review will contain many authoritative contributions by such leading personalities as the Minister of Transport, Sir Guy Ropner, Mr. C. D. Storrs, Mr. E. L. Champness, Sir Ronald Garrett, Sir Frank Alexander, Mr. Basil Sanderson, and important technical articles by Mr. David Bruce, Mr. R. G. C. Richardson, Capt. F. J. Wylie and many others.

Last year's Annual Review was quickly sold out, and subscribers are advised to order extra copies which they require in advance. The price of the Annual Review Number is 2s. 6d. per copy (no extra charge to subscribers).

Orders should be addressed to THE SHIPPING WORLD, LTD., 1, Arundel Street, London, W.C.2.

ON THE "BALTIC"

REVIVAL OF THE PLATE MARKET

By BALTRADER

THE River Plate trade occupied a modest back seat until almost the end of the year, but has now joined the other markets in offering high rates of freight. There must be considerable attraction in a freight of 120s. per ton for wheat from up-River Plate to India, to follow a voyage with coal from the United Kingdom to Buenos Aires at more than 50s. There are prospects of a further advance in the rate from the Plate to India, whose Government has bought 500,000 tons of Argentine wheat, against which about a dozen ships have so far been chartered. A large sale of wheat has also been made to Italy, and charterers are in the market for wheat carriers to the near Continent. For the latter destination, merchants are offering 70s., but owners expect to obtain at any rate 10s. more. The United Kingdom is not at present asking for Plate wheat and it remains to be seen whether the Ministry of Food will eventually import wheat from the Argentine. In any case, a strong Plate market seems to be inevitable in view of the totally inadequate supply of shipping committed to discharge in that area. For January loading there are only about half a dozen tramp ships known to be available, for January/February ten, for February eleven, and for March so far only two. The explanation, of course, is the small number of coal cargoes going out from this country or the United States to South America.

Strong Freight Markets

Freight markets closed for the Christmas holidays with every sign of strength, although the more immediate demands for coal carriers from the U.S.A. to the United Kingdom appeared to have been covered. Owners had the air of welcoming the recess as a means of escaping the attention of charterers and of being confident that no harm would be done by awaiting events. The tonnage position has been affected for months to come by the large number of charters lately arranged for grain to India from both sides of North America and from the River Plate. There has also been insistent demand for movement of grain and lumber from the North Pacific to the United Kingdom. These charters involve long voyages, and, in the case of lumber, a considerable period occupied in loading and discharging. They differ in this respect from the trans-Atlantic voyage with coal, which can be completed in a few weeks. In due course the existing programme for the import of American coal will be completed, but it seems to be evident that the National Coal Board would be wise to go on quietly importing through the summer months. The frantic call for foreign coal at all cost, coming as it did in the middle of the winter, completely upset the orderly working of the freight market. Government chartering was an inter-departmental scramble, aggravated by the strong competition of foreign importers of coal. Charterers, in need of space for all sorts of cargoes, stood aside for a while, but have watched the level of freights rising alarmingly every day. Some charterers have lately rued the day when, earlier in the year, they contracted ahead to carry large quantities of cargo at a moderate rate of freight.

Ministry of Food Inactivity

The inactivity of the Ministry of Food in the Australian market is rather surprising, because it is thought that a number of vessels are likely to be wanted to bring wheat to this country. There is perhaps no immediate urgency in view of the present congestion at the Australian ports. The more pressing need is for shipping to load in the North Pacific, and for that reason freights indicated on behalf of the British Government for loading in Australia have not been competitive. Later there will be an unusually large congregation of tonnage discharging American wheat in India, and the charterers may consider that this will facilitate their securing tonnage homeward from Australia—not that there is any sign of an excess of tonnage developing in the Indian Ocean in the near future. Rates of freight are such that owners can afford to order long ballast passages to the areas most in need of tonnage; alternatively they can secure time charters with delivery wherever their ships may be available and thus leave to the charterers the expense of the ballast voyage. Vessels have, for instance, been taken in considerable number with delivery in Australia and the Far East for the trip home via the North Pacific, where they will load lumber for account of Timber Control. Sooner or later, if peace is preserved, there will be a check to the amassing of stockpiles and a growing resistance to the payment of inflated rates of freight; but meanwhile very many charterers have commitments which they cannot afford to leave uncovered.

The Freight Markets

A comparatively small amount of business has been transacted in the freight market since Christmas, but this was due to the reserve of owners. A jump of 20s. per ton was recorded by the fixture of *Inventor* from San Domingo to the United Kingdom at 100s. for sugar, January 25/February 10. The *Pine Hill* was chartered from North Pacific to U.K. at 132s. 6d. f.i.o., 9,400/9,600 tons, lumber and general cargo, February 20/March 20. Fixtures for American coal to the United Kingdom have been few, but 65s. has been repeated for January or 62s. 6d. February loading. Hampton Roads, coal, to Savona paid $10.50. The *Telamon* was fixed for heavy grain from U.S. Gulf to Alexandria at $16, with 1,000 tons daily discharge free, second half January. The *Luciano* was taken for heavy grain from Black Sea to U.K. at the unchanged rate of 75s., February 1/February 15. Bona ore paid 45s. to Tyne Dock and to Bristol Channel, January. Australian charterers were onlookers. Time charters were not arranged in great numbers but rates of hire were firm. The *Queen Adelaide* (m.v.), 9,450 d.w., 10 knots on 8 tons, is fixed for an Australian and/or New Zealand round, delivery Rotterdam late January, redelivery U.K./Continent, at 32s. 6d. per ton per month. The *Giacomo Fassio*, 10,800 d.w., 10¼ knots on 26 tons oil, will perform the trip on time charter from Baltimore to Tripoli (Syria) at 42s. per ton per month, January 20/February 10.

Air Charter Business

There has been good inquiry for chartered aircraft, especially for account of the Corporations, who continue to have more cargo to carry than they can deal with in their own planes. Movements of service equipment and personnel are also fully maintained. Recent fixtures include the charter of a "Halifax" from Brussels to Saigon with general cargo and a "York" with cargo from the United Kingdom to Cyprus. A number of inquiries are circulating for transport of ships' crews.

THE steamship *Lewis Hamilton*, 2,778 tons gross, built in 1945, has been sold by the Rodney Shipping Co., Ltd., to Rederi A/B Iris, of Stockholm, and renamed *Indus*.

A SCHOLARSHIP valued at £180 per annum (the equivalent of the College fees) tenable for two years, will be available for entry to H.M.S. *Worcester*, Greenhithe, Kent, in April, 1951. It has been presented by the Ellerman & Bucknall Steamship Co., Ltd. The successful candidate will enter the service of the donors on completion of his training, subject to progress and conduct.

COAL AND OIL

TRAFFIC THROUGH THE COAL PORTS

AS THE FIGURES for coal exports for each succeeding week become available, it becomes increasingly obvious that a return to prewar conditions for the ports concerned principally with the export of coal is fading into the realms of fantasy. The latest week for which the total of exports is available is that ending on December 16, when the amount sent out of the country was 145,000 tons, compared with 370,000 tons dispatched in the corresponding week last year. The ports most seriously affected are probably those of South Wales, where coastwise shipments formed a smaller proportion of the coal trade than was the case on the North East Coast. The position is being improved temporarily in South Wales by the inward shipments of American coal, but this obviously affords only a temporary relief. Some of the ports on the North East Coast, on the other hand, are actually handling almost as much coal as they did before the war. While some, such as Hull, are feeling the absence of shipments to Scandinavia and Europe, others are being compensated by the increased coastal traffic due to the growing internal consumption of Southern England. Coal and coke shipments from the Tyne in the first 11 months of this year amounted to 8,822,725 tons, which is 837,703 tons higher than the corresponding 1949 figure. But the best example is Blyth, where shipments are back to about the prewar level. By December 19, coal shipments from the port had passed the 6,000,000-tons mark, an event which had only occurred before in the years between 1934 and 1937.

Developments at Wankie

THE RECENT annual general meeting of the Wankie Colliery Co., Ltd., was the first since the company came under the management of Powell Duffryn, Ltd., an event which took place on May 1, 1950. It is clear from the statement of Mr. Robert Foot, the new chairman and joint managing director of the company, that everything possible is being done to increase the output of the mine. Additional capital of over £2,000,000 is being used to finance the expansion, which will include the introduction of mechanisation in a number of processes. Even before the new arrangements were made, the output had been expanded considerably in the year ending on August 30, 1950, the saleable output amounted to over 2,100,000 tons, which is more than twice the output for 1939. This expansion is now being speeded up, and during December production was at an annual rate of 2,400,000 tons. Despite this, there is little prospect of the additional coal produced being put upon the world market for some time, as there exists in the surrounding country a considerable unsatisfied demand. Since the end of the war the demand for coal in Southern Rhodesia has outstripped in its growth the increasing productive capacity of the coal mines, and industry is having to burn wood—a most unsatisfactory substitute. To take the example quoted by Mr. Foot, the copper companies in the region are at present short of something like 21,000 tons of coal a month. In the future, however, this source of African coal may well have an important place in world coal trade, and may recoup for the sterling area some of the export coal trade lost by Britain.

New Agreement for Middle East Oil Imports

ANOTHER link between the U.S. oil import trade and the Middle East has been forged with the agreement recently concluded between Atlantic Refining and the Gulf Oil Corporation. The Petroleum Press Bureau reports that Atlantic is to take approximately 12,000 barrels a day, for a period of five years, from Gulf's half share of Kuwait production. The total production of Kuwait in now running at a rate of approximately 400,000 barrels a day, which is shared equally by Gulf and Anglo-Iranian, the two groups jointly owning the capital of the Kuwait Oil Co. In June 1947, the Royal Dutch-Shell Group concluded a long-term agreement for taking part of Gulf's Kuwait production, the amount delivered under this contract in 1949 being about 87,000 b/d. out of a total Kuwait production of about 240,000 b/d. Atlantic Refining is already engaged in the U.S. import trade, bringing in crude from its subsidiaries in the Caribbean area. The supplies from Kuwait under the new agreement will be carried to Philadelphia from the Persian Gulf by 30,000-tons tanker.

OFFICIAL NOTICES

New Companies

THOS. & JAS. HARRISON, LTD., Mersey Chambers, Liverpool, 2.—Registered December 16. To carry on business of managers of shipping property or shipping companies, managing owners, etc. Nominal capital: £50,000 in £1 shares (49,000 cum. pref.). Directors: Sir T. Harrison Hughes, Bt., Eddington House, Hungerford, Berks.; J. W. Hughes, Flat 28, Grosvenor House, Park Lane, London, W.1; J. C. Mannings, J. B. W. Hughes, E. C. Braine and J. M. Cowan.

[Information from *Jordan's Daily Register of New Companies*]

Increases of Capital

A. E. SMITH COGGINS, LTD., stevedores and master porters, etc., 36 Dale Street, Liverpool.—Increased by £40,000, in £1 ordinary shares, beyond the registered capital of £20,000.

CARMICHAEL BROTHERS, LTD., ironfounders, engineers, ship repairers, etc., Nile Street, South Shields.—Increased by £20,000, in £1 ordinary shares, beyond the registered capital of £10,000.

DONFIELD TANKERS, LTD., "B" Milburn House, Newcastle-on-Tyne. Increased by £40,000, in £1 7½ per cent non-cumulative redeemable preference shares, beyond the registered capital of £10,000. On May 31, 9,998 shares were allotted; of which Wm. Doxford & Sons, Ltd., held 4,998 and Northern Petroleum Tank Steamship Co., Ltd., 2,495.

Changes of Name

ALCYONE SHIPPING FINANCE CO., LTD., 40 St. Mary Axe, London, E.C.3. Name changed to Alcyone Shipping Co., Ltd., on December 8.

STANDARD OIL CO. (MALTA), LTD., 1 Copthall Close, Moorgate, London, E.C.2. Name changed to Esso Standard (Malta), Ltd., on November 24, 1950. At April 17, 1950, Standard Oil Co. (New Jersey), U.S.A., held 996 shares of £100 each out of 1,000 issued.

NEXT WEEK'S EVENTS

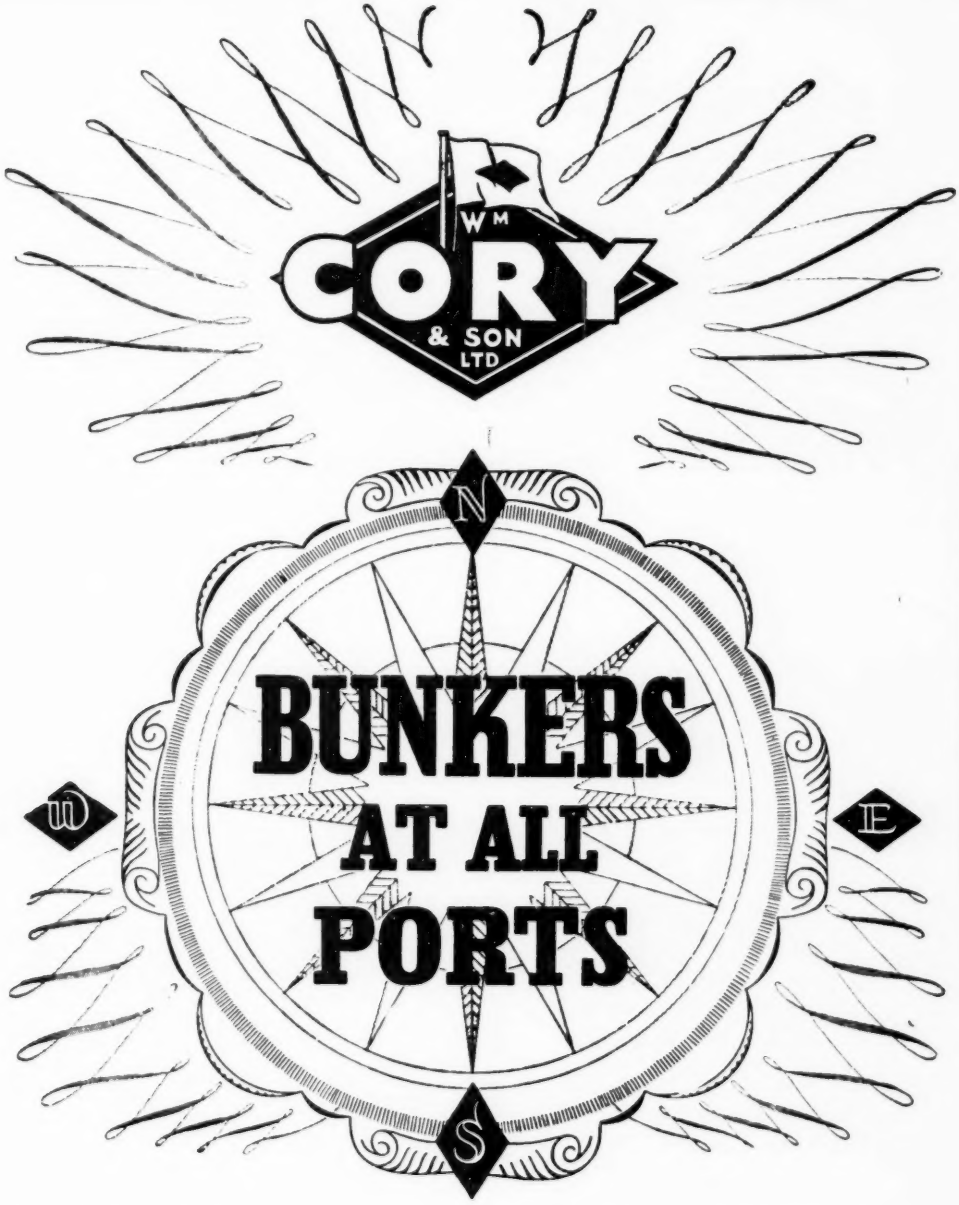
JANUARY 5.—"Mechanical Handling." Joint meeting of the Inst. of Electrical Engineers and the Inst. of Mechanical Engineers, Storey's Gate, St. James's Park, London, S.W.1. 5.30 p.m.

JANUARY 9.—"Stress Analysis using the Brittle Lacquer Process," by K. C. Rockey. Institute of Marine Engineers, 58 Minories, London, E.C.3. 5.30 p.m.

JANUARY 10.—"Gas Turbines," by F. E. Bowman. Joint meeting of the Belfast Association of Engineers and the Institution of Production Engineers.

JANUARY 12.—"Combustion Problems of Gas Turbines," by I. Lubbock. N.E. Coast Institution of Engineers and Shipbuilders, Mining Institute, Newcastle-upon-Tyne. 6.15 p.m.

THE SEVEN cargo liners of Canadian Pacific Steamships carried 256,132 tons of cargo into the ports of Montreal, Three Rivers, Quebec and Port Alfred during this year's St. Lawrence navigation season. In the opposite direction, 344,729 tons of cargo were carried by the ships to London, Liverpool and Antwerp.



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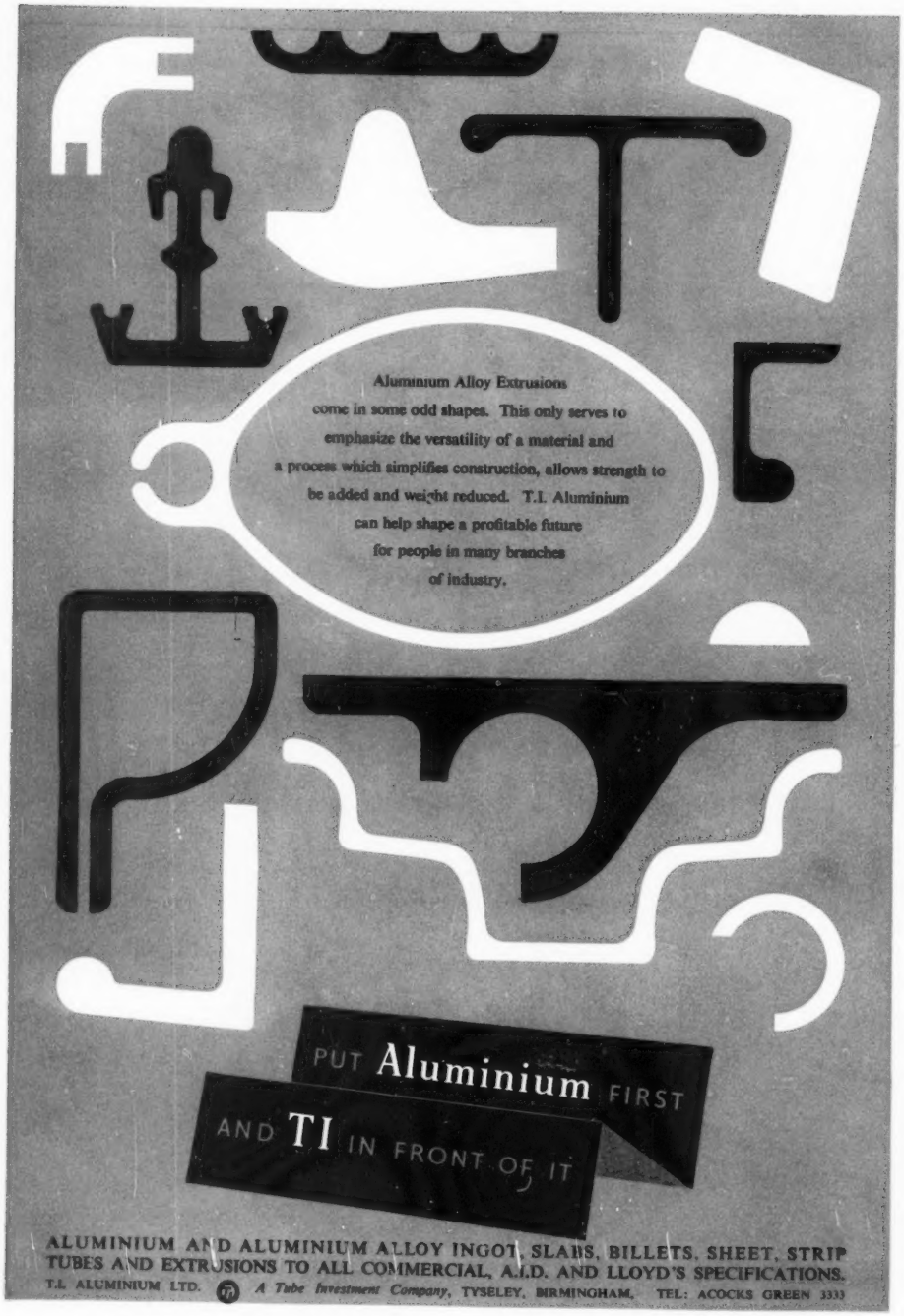
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Monthly Light Alloys Section

STATEROOM FIRE TEST*

RESULTS OF UNITED STATES COASTGUARD EXPERIMENTS

PRESENT STANDARDS require that bulkheads between staterooms be of a material which preserves the integrity of the room after a 30-minute exposure to a fire of intensity indicated by the Standard Curve. The purpose of this test was to determine if such temperatures would be reached in a stateroom containing a minimum of combustible equipment and construction.

An inspection of the average curve of temperatures indicates that there was free burning for the first two minutes of the test, but for the next twelve minutes, the rate of burning was decidedly retarded. However, at fourteen minutes after the start of the test, the rate of burning increased rapidly. This behaviour can be explained by the fact that the gypsum board panel covering the upper half of the entrance door trunk, which had restricted the overflow of the gases of combustion, was cleared away. The inert gases held in the upper portion of the room by the panel were released, to permit access of air for free burning. In other words, a fire starting in a stateroom probably will have a low rate of spread after the initial oxygen in the room is consumed, resulting in reasonably low temperatures, if all doors, windows, and ports are closed, even though normal ventilation is provided. However, as there is always the possibility that doors, windows, or ports may be open when a fire starts or during its progress, it appears reasonable to discount that portion of the average curve between two and fourteen minutes, restricting consideration to the first and last phases of the test.

In order to compare the room temperature with the Standard Curve properly, and assuming that the elimination of that portion of the curve between two and fourteen minutes is correct, a compensated average graph was prepared. The Standard Curve on this graph was adjusted to compensate for the initial temperature of the room. A comparison of these two curves indicates that the temperatures in the room approximated the Standard Curve for 15 minutes only, instead of 30 minutes as prescribed by present testing standards.

Time-Temperature Curve

The measure of fire severity is the area under the time-temperature curve. It was noted that there was a difference of only 20 per cent between the two areas for the half-hour period. In arriving at any conclusion relative to this difference, consideration should be given to the following points: (a) the effects in the room allowed no excess as the items chosen were those which had been determined as being supplied by the operator of the vessel, or brought aboard by three passengers; (b) further, it may be pointed out that in reviewing some contemporary designs, rooms with approximately the same deck area have been indicated for four persons, whereas the Test Room contemplated three. In view of the foregoing, and as standards of this nature should contain a factor of safety to provide for unusual conditions, the adherence to present testing standards should be continued.

At present, the bulkheads between two staterooms, furnished in a manner similar to the Test Room, are required to meet a Class B-O standard. In other words, the bulkheads must restrict the passage of flame during a 30-minute Standard Curve exposure, but no restrictions are placed on the heat transfer properties of the bulkheads. Since the clothing and bedding in the adjoining rooms were ignited even in cases where bulkheads remained intact, some doubt may be cast on the degree of protection provided by this requirement. As one of the principles of the present standards has been that a fire should burn itself out in the space of origin, without spreading to adjacent spaces, it would appear that insulation ought to be required on bare metal bulkheads to achieve this result.

However, in defence of the present standard, it may be said that such a fire would offer little serious threat to the vessel so long as the individual rooms maintained their integrity. It would be a matter of fighting a series of relatively small fires, each of which is, in effect, independent of the other. On the other hand, if the bulkheads failed to maintain their integrity, a major conflagration might develop making the job of fire fighting more difficult and the results less predictable. In view of the foregoing, it is believed that the present standard for rooms of this type can be retained.

Aluminium for Class B Construction

Although the aluminium alloy bulkheads melted in two locations only, and these close together, there was evidence of incipient melting in other portions of the same bulkhead. This was also true of the bulkhead in way of the double berth, and the bulkhead between the test room and the wardrobe reflected room. Hence it appears obvious that had the fire been of greater intensity or duration, a more genuine failure might have resulted. Accordingly, it is believed that this test affords conclusive evidence that bare aluminium should not be used in Class B-O construction unless it is protected suitably from fire.

As already noted, the ceiling panels tended to crack at the fastenings. Several panels became loose along one or more edges, and one panel dropped to the deck. The tendency to crack was observed also in the adjoining rooms in way of the bulkheads and at the corners away from the bulkheads. The two panels which had been specially installed, as previously described, withstood the test without cracking. It appears that ceiling panels should be secured in some manner similar to this, or other means should be adopted to compensate for the variation in rates of expansion between the panels and the supporting members.

Aluminium Decks

As previously noted, aluminium alloy bulkheads require protection from fire. In a like manner, it appears obvious that the deck heads also must be protected from high temperatures. It is true that even after the ceiling panel fell the deck above was not unduly harmed, but the general room temperature in the vicinity was already dropping so that the deck above was never subjected to the full severity of the fire. With regard to the deck of the room itself, only moderate temperatures were achieved. This was due apparently to the natural rise of hot gases. Accordingly, it is believed that, although aluminium alloy deck should be protected on the underside from a possible fire, a bare aluminium walking deck appears to offer little hazard from a fire of this type above the deck.

For some time there has been a controversy as to the proper location of door louvres. One school of thought is that they should be low to prevent excessive smoke in the passage; the other is that they should be high to permit smoke to enter the passage readily where it may be observed while the fire is in the incipient stage. The present test did not indicate directly what results would have been obtained with a high louvre. In this connection, it may be mentioned that the International Conference on Safety of Life at Sea, 1948, requires that the construction of bulkheads be such that the patrolman may detect smoke readily from the various spaces. It is suggested that this might be accomplished easily by means of a screened hole of small diameter near the top of the bulkhead so that sufficient smoke for detection would issue from the room, but very little draught would be afforded for clearing fire smothering gases.

(*Continued at end of next page*)

* This article concludes the abstracts from a paper read before the Society of Naval Architects and Marine Engineers, in New York, on November 9 and 10, by Lieut.-Commander Archibald H. McComb and Edwin E. Renzenberg.

Monthly Light Alloys Section

Stateroom Fire Test

An Appraisal by a Special Correspondent

THE TESTS described in this paper are of some interest, showing as they do that the contents of a passenger cabin are sufficient to support a fire of severity comparable to that described by the standard fire curve. On the other hand, a certain ambiguity of purpose is apparent as the practical nature of the main aim is somewhat overshadowed by the fact that the cabin was constructed of aluminium, and by the subsequent behaviour of the material. As a result, it is difficult to know how to assess such a paper, containing both valuable information and results whose practical application is not apparent.

The form of construction would not satisfy either of the first two methods of fire protection stipulated by the 1948 International Fire Conference, as, under Method I, Class B bulkheads would be required in the stateroom, and even if the integrity of the bulkheads was maintained, the conduction of heat through uninsulated metal, whether steel or aluminium, would be sufficient to ignite the normal furnishings, hangings and paint in the adjoining compartments. Under Method II, a sprinkler would be required in the stateroom, and this, it is submitted, would have been sufficient completely to alter the results of the test. Further, it should be pointed out that in certain ways, admittedly of secondary importance, the materials and construction differ considerably from current practice in this country. An example of this is in the use of steel deck beams which, to date, is not regarded as a normal procedure on this side of the Atlantic. Heat-treated plate was used, this being the American shipbuilding alloy 61S-T6, which, while a very good material, is subject to damage in the form of lowering of mechanical properties when heated to temperatures above about 200 deg. C. A considerable amount of the structure in the vicinity of the fire would have its mechanical properties affected if constructed of this material, even though not otherwise damaged. This would not apply to the corresponding British material used in shipwork, which is a magnesium-containing non-heat-treatable plate.

The test was very complete and carefully carried out, but it is doubtful whether, in the average cabin occupied by three young women, there really would be three bottles of 100 per cent proof whisky and 35 rolls of film. Perhaps this is another point on which American and British practices differ.

Standard Fire Test

Under the Standard Fire Test, the temperature in the burning compartment would reach 1,200 deg. F. in about eight minutes, and in the test it was shown that with the contents of a normal cabin on fire, this temperature could be reached in something over five minutes, provided there was sufficient oxygen available to support combustion. That this was not so in the test until the door was partially destroyed is irrelevant, as the restriction of oxygen supply by the door could not be relied upon under service conditions. Now, this is about the melting temperature of aluminium, and allowing for a time lag of heat transfer to the bare bulkheads, it is clear that in the half-hour allowed for a Class B Fire Test, some portions at least of the aluminium are likely to reach the melting point. This conclusion could have been reached without a test. Where the bulkhead is exposed to the outside air, e.g., where it forms part of a deckhouse boundary, this argument might not, indeed probably would not, apply, due to the combined effects of radiation, convection and conduction losses to the outside air.

These facts, however, do not make aluminium an unsuitable material to use in a superstructure required to conform with any of the methods approved by the Safety Conference. In Method I, Class B bulkheads must be fitted to staterooms and the use of either steel or aluminium bulkheads would not be accepted. In Method II, as mentioned earlier, sprinklers would be fitted. After the reading of the paper a film was shown, and it was apparent that when the contents of the paper basket were lighted a spout of flame rose to the ceiling and flattened out before the fire spread to the general contents of the room. Certainly, this would have actuated a sprinkler system and it is probable that the fire would have been considerably reduced by the time the photographs were taken.

Turning to the structural aspects of superstructure fireproofing, the position is much clearer. Here, the requirements that the major Class A bulkheads and the deck structure meet the statutory conditions can be satisfied in more than one way. To illustrate from the paper, it was shown that in no case did the temperatures rise appreciably above 800 deg. F., while they were generally between 400 and 800 deg. F. The ceiling sheets were 3/16-in. thick asbestos, and the protection that they afforded was quite sufficient to assure the integrity of an aluminium deck above. It is disappointing that an aluminium deck was not fitted in the test.

Class A requirements can be met as in normal practice either by the application of sprayed asbestos to the surfaces or by the use of pre-formed asbestos insulating sheets. Modified thicknesses are needed, of course. In general, it is anticipated that a moderate increase in thickness of the insulating material over that used with steel will be necessary. Official tests are in hand in this country at the moment to determine quantitative values for these thicknesses. Further tests to this effect have been carried out in the United States, and will, no doubt, be published in the near future. They indicate the full efficacy of the normal American methods of fireproofing structures, such as decks and bulkheads, when these are constructed of aluminium alloy.

This paper is valuable, as it does show that irrespective of the material of construction of a stateroom it will, in practice, contain sufficient inflammable material to reproduce standard fire conditions. Beyond that, however, it cannot be said to make a constructive contribution as there can never have been serious grounds for hoping that uninsulated aluminium would meet the requirements for integrity and heat conduction inherent in the American methods of construction, involving Class B bulkheads.

(Continued from previous page)

Although no conclusive proof can be offered, it is believed that the fire-retardant treatment given to the mattresses and spreads had a considerable effect on the room temperature. The fire retardant treatment does not make the material fireproof in the sense that it will not burn and thus add heat to the fire. In fact, ignition occurs at approximately the same temperature and the amount of heat given off is about the same as with untreated materials. However, the rate of burning is retarded so that under normal conditions, if ignited, it is so slow that the heat furnished is not sufficient to make combustion self-sustaining.

It was estimated that the total contents of the room had a fuel value of approximaely 4,300,000 B.Th.U. Of this amount, the mattresses comprised approximately one-third. Accordingly, it well may be assumed that if the mattresses and spreads had been of the untreated variety the initial ignition would have occurred at the same time, but during the test, the rate of liberation of heat being greater, higher temperatures would have been achieved, resulting in a closer approximation to the second 15 minutes of the Standard Curve.

Effect of Paint

To be realistic, so far as the general safety of the room is concerned, the importance of a fire-retardant treatment to bedding, draperies, upholstery, etc., is that it tends to restrict the potentiality of what is presently one of the most common sources of fire. Whether or not the Standard Curve is simulated during the fire test is of lesser significance.

The usual stowage place for life jackets is under the berths or in wardrobes. In these locations they are not apt to form the original source of a fire, but, if a fire occurs, they are strategically situated to augment the spread of the flames. Life jackets generally are filled with kapok, which is a highly combustible material, and are encased in untreated cotton drill.

There was no apparent evidence that the paint on the bulkheads and structure assisted in the propagation of the flames during the test. However, in this case, it must be remembered that the amount of paint applied simulated the new ship condition rather than the multiple-coat condition often prevalent after years of service. Evidence from other fires ashore and afloat substantiates the fact that paint can be the carrier of fire. It is felt therefore that serious consideration should be given to the use and further development of fire-retardant paints for marine work.

Monthly Light Alloys Section

LIGHT ALLOYS IN TRAWLERS

EXTENSIVE USE OF ALUMINIUM IN THE "RED ROSE" AND "RED HACKLE"

IT HAS long been realised that while future developments may make widespread the use of aluminium alloys in the building and equipment of ships of all types and sizes, there are many special classes of smaller vessels in which light alloys can now be fitted extensively, with considerable constructional and operating benefits. Among these small craft, trawlers provide excellent examples, and the trend for some time has been to use aluminium for more and more purposes in these ships. Up to the present, perhaps the greatest use of light metals in trawlers has been in the *Red Rose* and *Red Hackle*, built by John Lewis & Sons, Ltd., of Aberdeen, for The Iago Steam Trawler Co., Ltd., of Fleetwood, as was mentioned in the article dealing with these ships in THE SHIPPING WORLD of December 20. The accompanying illustrations (see page 10) show the purposes which the aluminium applications have served, more than 27 tons of aluminium alloys having been used in each vessel.

The wheelhouse and chartroom are located in a house elliptical in plan and with windows in the deckhouse side practically all round the house, giving an all-round clear view for the master on the bridge. The use of aluminium for this deckhouse and for the bridge and the funnel, also of modern streamlined shape, has facilitated construction, while also, of course, reducing top hamper, an important factor in a ship of this size and fine underwater form. The materials used were the "Kynal" type supplied by Imperial Chemical Industries, Ltd., the wheelhouse in M35/2 half-hard plates and M39 fully heat treated sections, while the funnel is in M35/1 half-hard plates and M39/2 F.H.T. sections. Aluminium rivets were supplied by David Powis & Sons, of Birmingham, and the Lanarkshire Rivet, Bolt & Nut Co. As shown by the photographs on page 10, a special type of extrusion in M39/2 F.H.T. alloy has been used for shelf and division boards in the fish room, the hold lining being of 16-gauge M35/2 half-hard aluminium alloy, all supplied by I.C.I., Ltd.

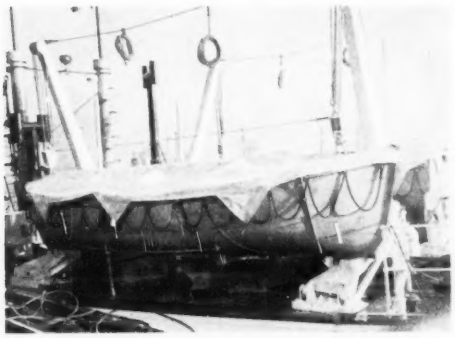
Deck Pound Boards

A point of special interest in this vessel is the use of light metals for the deck pound boards, these two trawlers being the first in the world to use such materials for this purpose. The boards, formed from "Kynal" M39/2 F.H.T. aluminium alloy extrusions, are of the same size as used in the fish room, while the deck pound boards are themselves stowed in a deck bin itself comprised of standard light alloy boards. Supporting members for the boards are of steel channels, however, as it was thought that light alloy members strong enough to withstand the surge of the fish cargo in heavy seas would be unduly large in scantlings. Excellent reports as to the performance of the aluminium alloy fish boards at sea have been received from the *Red Rose*, the first of the two trawlers to enter service, the deck pound boards, in particular, being easy to handle; and because of their corrugated design they can be freed from ice without difficulty, as well as giving a high strength to weight ratio.

In addition to the items already mentioned, aluminium alloy has been used for the inside of the ice chamber, the front of the liver boiling house and the sheathing of the liver boilers themselves, while further incidental uses include the navigation light screens, and the insulation and covering of the galley funnel.

In way of the cod liver hoppers, outside the liver boiling room, where oil and water tend to provide a dangerous working surface, the non-slip tread plate known as P.G. plate, manufactured by The British Aluminium Co., Ltd., in B.A. 25-W.P., has been provided, similar plating being fitted in the region of the trawl winch controls.

The two lifeboats provided in each of these trawlers are also of aluminium alloy, in this case of Birmabright, the boats having been supplied by The Viking Marine Co., Ltd. Cast aluminium stanchions and a cast aluminium stem decoration have been provided by the Torry Foundry, of Aberdeen, in M35/2. Aluminium ladders, manufactured by the Dundee Aluminium Fabrication Co., Ltd., have been made from D.B.T.22 rungs and E.9387 stringers, in Noral materials supplied by The Northern Aluminium Co., Ltd.



One of the two aluminium lifeboats in each trawler

ALL ALUMINIUM RACING YACHT

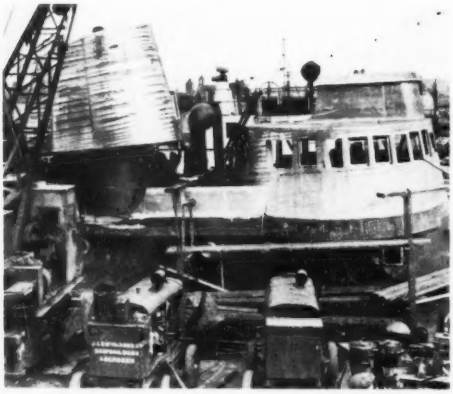
First of the "Flying Fifteen" Class

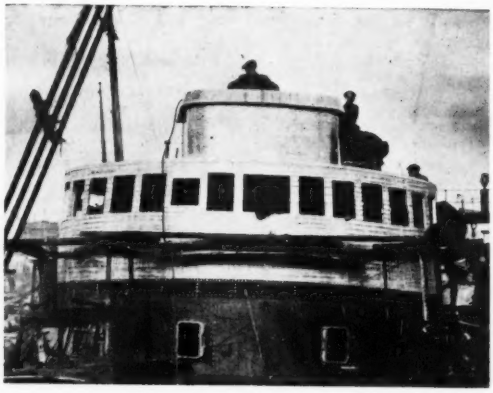
ONE of the most interesting exhibits in the Motor Boat Section of the recent Motor Show at Earls Court was an Uffa Fox-designed "Flying Fifteen" constructed in aluminium alloy. The boat has an overall length of 20 ft., is 15 ft. on the waterline, and is the first of this famous class to be built in aluminium. The sheet and section materials (with the exception of the aluminium alloy mast, patented by Reynolds) are to NS5 and NE5 specifications respectively, supplied by the British Aluminium Co., Ltd. The boat was built by Whittingham & Mitchel, Ltd., on whose stand it was exhibited.

The sheets which form the hull were of quarter-hard temper and in 14-gauge. They were shaped to the jig by wheeling and welded at the joints by the oxy-acetylene process. The welding is of a high order and all traces of flux residue have been removed, thus eliminating a corrosion danger. The cast iron keel is bolted to the hull with galvanised steel bolts and the decking, which is 16-gauge, is flanged over and riveted. Semi-portable watertight bulkheads are fitted fore and aft.

The cost of the boat is £350 exclusive of sails, which is the same price as its equivalent in timber, but it is claimed that the alloy boat has certain important advantages. First, it is not subject to water soakage, and is thus the same weight at the end of a season's racing as it was at the beginning, which could never be the case with its wooden counterpart. In any case, its original weight is slightly less, which would tend to produce a faster boat. Secondly, maintenance can be more or less summed up as an annual coat of paint, which is applied for the sake of appearance rather than necessity. The boat can be left at its moorings all the year round, or even stowed in the backyard of the owner without incurring any harm, and thus winter laying-up troubles are obviated. It could, in fact, be truly said that once the initial cost of the boat has been borne, maintenance costs are negligible. Thirdly, aluminium is more highly durable in tropical climates than wood and is not subject to attack by such features of foreign waters as the teredo beetle, etc., and this attribute should make the boat of particular appeal to buyers overseas.

The Aluminium Company of Canada is to supply the United Kingdom in 1951 with 50,000 metric tons of virgin aluminium in addition to the 150,000 metric tons already contracted for. It will also supply in 1952 and 1953 220,000 metric tons per annum.



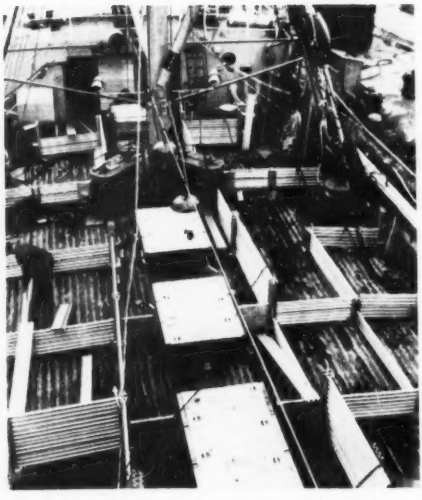


Wheelhouse and funnel under construction

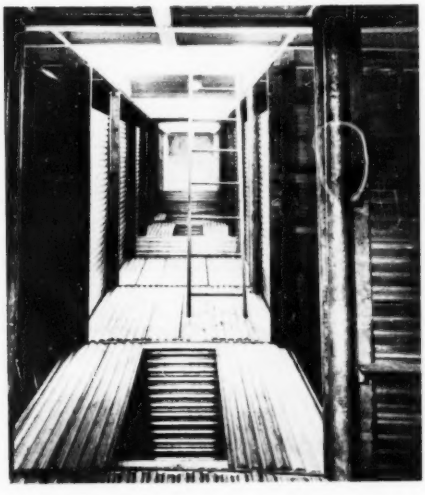
LIGHT ALLOYS IN THE TRAWLERS "RED ROSE" AND "RED HACKLE"

(See article on previous page)

Left: **The completed wheelhouse and funnel, etc., in aluminium alloys**

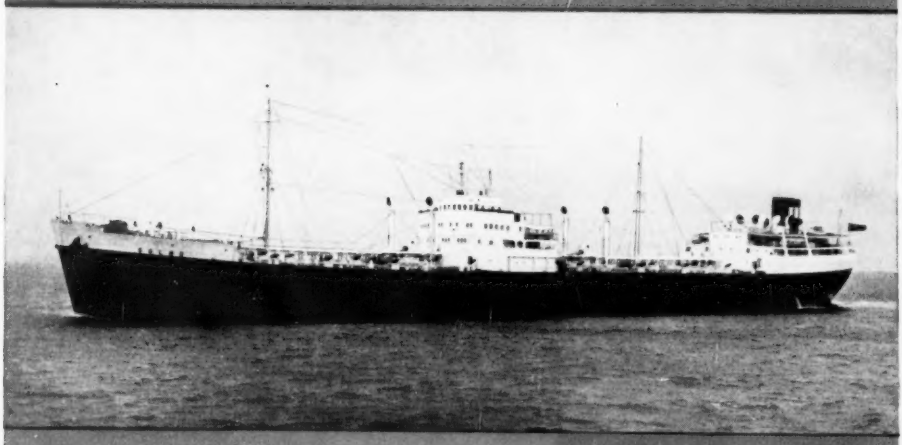


Aluminium pound boards on working deck

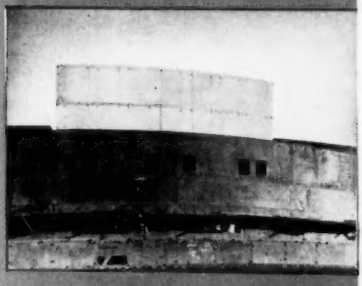


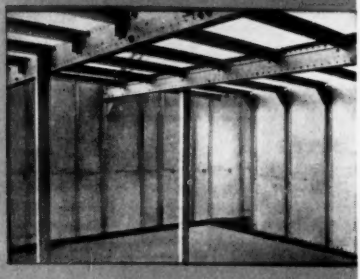
The upper stage in the aluminium fish room

This Tanker and 54 more



are using NORAL ALLOYS





We recently supplied Noral A56S plate and 51S sections for the wheelhouse of M.V. Solør, built by Furness Shipbuilding Co. Ltd. Altogether a total of 55 similar tankers are being fitted with wheelhouses constructed of Noral alloys.

The advantages of Noral alloys for shipbuilding are manifold. They are non-magnetic, they help to reduce deadweight, they resist corrosion from seawater and salty atmospheres, and they are strong and durable. In addition, Noral alloys are light and easy to handle, thereby saving time during construction.

We invite naval architects and shipbuilders to consult us with their problems on application and design.

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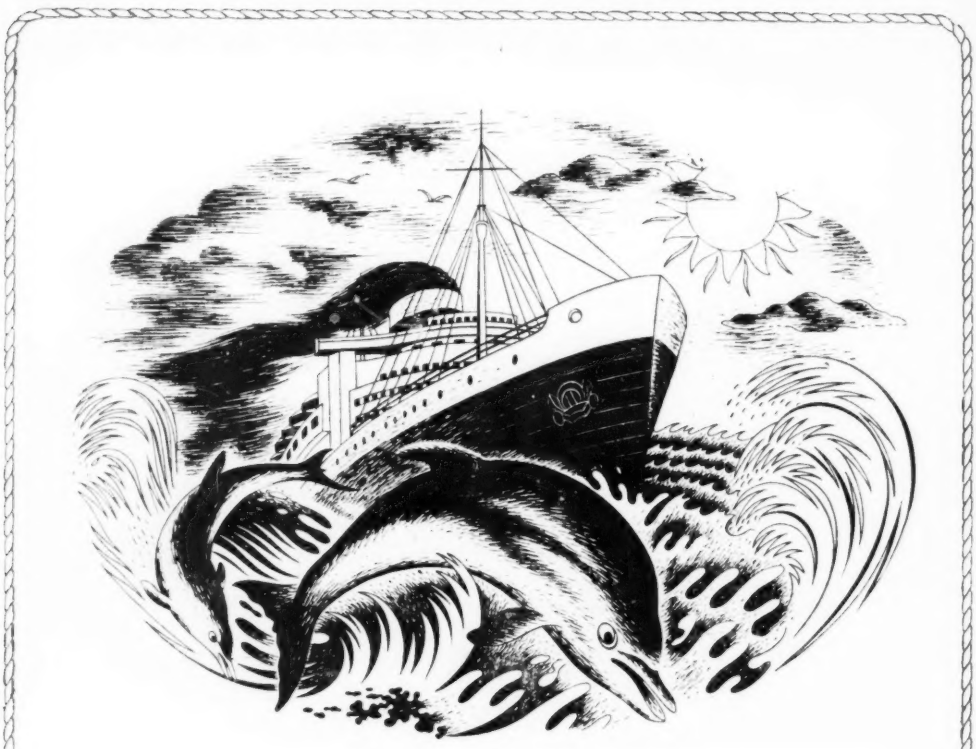

In its element at sea

S.5

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DANISH SHIPPING AND SHIPBUILDING

CHANGE IN BALANCE OF FLEET : NEW CONTRACTS

By THE SHIPPING WORLD'S Own Correspondent

THE RECONSTRUCTION of the Danish merchant fleet, which suffered a net loss of about 35 per cent during the war, is in full progress. The prewar tonnage of 1,100,000 tons gross has now been increased by 100,000 tons and a further 200,000 tons have been contracted. There are still a number of old ships in the fleet, however, and these must be replaced quickly if Denmark is to keep up with foreign competition. The average age, which in 1939 was 19.5 years, was 22.4 years on January 1, 1950. A considerable part of the recently added tonnage consists of tankers and within a couple of years this type of vessel will represent one-third of the fleet. There is unfortunately a great decline in the number of vessels of up to about 2,000 tons suitable for North Sea and Baltic trading, as the strict Danish regulations with regard to crew, etc., cannot compete with such countries as Finland and Germany.

The United Steamship Company has published an interesting booklet called *Five Years' Reconstruction*, which, besides some beautiful illustrations, gives a number of interesting statistics. Since the end of the war the company has increased its fleet by 29 vessels, totalling 88,430 tons gross and 116,271 tons deadweight. To show comparisons between 1938 and 1949, it is mentioned that in 1938 total wages amounted to 11 million kroner against 29 million kroner in 1949. Expenses in connection with repairs and upkeep were 4½ million and 24 million kroner respectively. The *C.P.A. Koch* cost 454,000 kroner to build in 1893 and the *H. P. Prior*, which the Company received this year, cost 11½ million kroner.

On November 30 Denmark and Poland signed a trade agreement whereby Poland receives four Danish ships for 2,000,000 tons of coal. The agreement, which runs until September, 1951, covers reciprocal trade for about £16,000,000. The agreement also covers manufactured goods and, among other things, Denmark will receive Polish steel. The motorship *Dansborg*, 8,920 tons deadweight, built 1945, and owned by C. K. Hansen, Copenhagen, is already reported sold to Poland. The newly formed Konkshavn Steamship Company (managing owners, Stangebye & Hansen, Copenhagen), have taken over the Swedish steamer *Othello*, 7,460 tons d.w., built 1918, and previously owned by Mr. O. Wallenius, of Stockholm. The purchase price was about £50,000. H. C. Christensen's Steamship and Sailing Ship Co., Ltd., of Marstal, have sold their 1,080 tons steamer *Erindring*, built 1921, to Finland and she is to be renamed *Sando*. The Steamship Company "Hetland" has bought the steamer *Ardennes* from the Belgian State and she will be renamed *Egaa*. She is a Hansa vessel of about 3,300 tons d.w. and was built in 1945 by Jos. Boel & Fils, Tamise.

New Orders

The United Steamship Company has ordered two 2,500 tons d.w. motor vessels at the Elsinore shipyard. They will be fitted with a 3,200 h.p. 8-cylinder B. & W. diesel and have a speed of about 15 knots. The vessels are intended for trading to the Mediterranean and/or Great Britain and will have refrigerated holds. Delivery is expected during 1952 and the total cost of both vessels will be about £500,000. Ove Skou, of Copenhagen, has ordered a 6,850 tons d.w. motor vessel at the Elsinore yard. Her 7,000 h.p. engine will give her a speed of about 15¾ knots. She will be similar to the *Benny Skou*, built by Burmeister & Wain in 1945, and two others ordered from Burmeister & Wain. It is reported that this owner has sold the *Benny Skou* to Poland in connection with the recently signed trade agreement at a price of about £700,000. She is of about 6,770 tons d.w., 396,000 cu. ft. bale and has a speed of about 15 knots on about 17 tons. The Elsinore yard has also received an order from A/B Helsingborg (Otto Hillerstrom) of Helsingborg, for a 6,500 tons d.w. motor vessel. She will be driven by a 6,750 h.p. engine and have a speed of about 15 knots. J. Lauritzen, of Copenhagen, has ordered three new fast refrigerated vessels, each of 4,000 tons d.w. Two of the vessels are to be built by Aalborg Værft and the third by the Elsinore yard.

A 900 tons d.w. cargo motorship has been ordered from the Nobiskrug yard, Rendsburg, by the Steamship Company Svendborgsund, of Svendborg. She will be fitted with a 750 h.p. diesel and will cost 915,000 Marks. Delivery is to take place October/November, 1951. A similar vessel, for delivery in August, 1951, has been ordered from the same yard by Mr. A. E. Sorensen, also of Svendborg.

NEW YEAR HONOURS LIST

Awards to Maritime Industries

THE NEW YEAR Honours List, published on Monday, contains a number of honours and awards of interest to the maritime industries. Chief among these are the knighthoods awarded to Mr. G. W. Barr, managing director, Fairfield Shipbuilding & Engineering Co., Ltd.; Prof. T. H. Havelock, Emeritus Professor of Mathematics, King's College, Newcastle-on-Tyne; Mr. E. D. A. Herbert, chairman, Short Bros. & Harland, Ltd.; and Mr. W. A. Souter, for services to the Tyne Improvement Commission.

The G.C.B. is awarded to Sir Godfrey Ince, permanent secretary, Ministry of Labour and National Service, and the C.B. to Mr. Eric Barnard, deputy secretary, Department of Scientific and Industrial Research, Mr. W. R. J. Cook, chief of the Royal Naval Scientific Service, and Mr. C. T. Houghton, under-secretary, Ministry of Agriculture and Fisheries. The K.C.M.G. is awarded to Sir Alexander Maxwell, chairman, British Travel and Holidays Association, and the K.B.E. to Mr. N. A. Guttery, deputy secretary, Ministry of Transport, and Mr. W. E. H. Rhydderch, deputy chairman, Board of Customs and Excise.

Among recipients of the C.B.E. are Mr. Karl Baumann, for services to turbine development; Mr. Hayne Constant, director, National Gas Turbine Establishment, Ministry of Supply; Mr. Robert Gillespie, managing director, British Tanker Co., Ltd.; Mr. P. H. Muirhead, director and general manager, Vickers-Armstrongs, Ltd., Newcastle-on-Tyne; Mr. B. F. Pool, director of contracts, Admiralty; Mr. S. L. Smith, director of research of the British Shipbuilding Research Association; Mr. William Watson, secretary, Shipbuilding Employers' Federation; and Mr. Thomas Yates, general secretary, National Union of Seamen. Recipients of the O.B.E. include Mr. David Archibald, general secretary of the North Atlantic British Liner Committee; Mr. Harold Barrett, principal, Board of Customs and Excise; Mr. Reuben Clarke, marine director, Laurence, Scott & Electromotors, Ltd.; the Rev. K. E. Collins, general superintendent, Missions to Seamen; Mr. Arthur Hoare, engineer manager, J. Samuel White & Co., Ltd.; Mr. J. J. Morris, Commodore Chief Engineer, Blue Star Line, Ltd.; Mr. E. G. Neate, deputy director of Navy Contracts; and Captain Harry Steele, master, *Port Brisbane*, Port Line, Ltd.

Among those who have received the M.B.E. are Mr. W. G. Brown, engineering manager, Factory Shops, Harland & Wolff, Ltd., Belfast; Captain R. G. Gillespie, master, *Mausang*, Indo-China Steam Navigation Co., Ltd.; Mr. William Heavey, senior dockmaster, Port of London Authority; Mr. Alexander Hislop, lately warden, Colonial Office Hostel for Moslem Seamen, South Shields; Mr. T. S. Hobbs, secretary of the Mersey District Shipping Federation, Ltd.; Mr. W. E. Mallett, chief engineer officer, *Royal Sovereign*, General Steam Navigation Co., Ltd.; Mr. John Rae, engineering manager, John Brown & Co., Ltd.; Mr. W. J. Sparey, manager, Electrical Department, Silley, Cox & Co., Ltd., Falmouth; Captain Frederick Summers, master, *Brika*, F. C. Strick & Co., Ltd.; and Mr. G. W. Wakeford, director of the School of Navigation, University College, Southampton. A number of seamen were among recipients of the B.E.M.

ROUND THE SHIPYARDS

Work in Progress on the North-East Coast

By THE SHIPPING WORLD'S Own Correspondent

THE FINAL month of 1950 provided little activity on the Tyne insofar as launchings and deliveries of ships are concerned, only one vessel entering the water, with one being handed over. The last launch of the year was at the yard of R. & W. Hawthorn, Leslie & Co., Ltd., Hebburn-on-Tyne, where the 8,000 tons gross cargo liner *Port Adelaide* left the stocks. The new vessel is the 35th ship built by the Hebburn firm for the Port Line, Ltd. The river's output of ocean-going ships for 1950 is practically the same in tonnage figures as in 1949, but there is a decrease in the number of vessels built. The 1950 figures are 19 ships of 194,621 tons gross as against 24 vessels of 195,555 tons gross. With the addition of small craft such as tugs, launches, barges, etc., the Tyne's total output for the year is 200,322 tons gross, as compared with 205,500 tons gross in 1949.

The last commissioned ship of the year was the 10,985 tons gross tanker *British Splendour*, launched in June by Swan, Hunter & Wigham Richardson, Ltd., Wallsend-on-Tyne. The new ship is the eighth tanker to be handed over on the Tyne during 1950 and the second for the British Tanker Company. The river's delivery output of ocean-going vessels for 1950 is below that of 1949, the figures being 23 ships of 206,500 tons gross against 28 vessels of 236,100 tons gross.

Tanker Tonnage Dominant

There will be a good start to the Tyne 1951 launching output with three big tankers leaving the slips. Incidentally, new tanker tonnage will dominate the 1951 launching programme, with the year starting with 22 tankers under construction or yet to be laid down, and the prospect of more contracts for tankers coming along. Within the next few weeks Swan, Hunter & Wigham Richardson, Ltd., will launch the 8,700 tons gross tanker *British Viscount*, and across the river at the yard of R. & W. Hawthorn, Leslie & Co., Ltd., a January launch will be that of the 11,200 tons gross tanker *British Seafarer*. Later this year the Hebburn firm will launch a giant tanker of 19,000 tons gross, also for the British Tanker Company. A third January launch will be that of the 18,000 tons gross tanker *Majorcam*, for Norwegian owners, building by Vickers-Armstrongs, Ltd., Walker-on-Tyne.

On the Wear three ships were launched during December, and the 1950 launching output for the year is 34 ships of 192,176 tons gross—the best tonnage for three years. For comparative purposes the 1949 figures were 37 vessels of 181,542 tons gross. The sixth tanker for the British Tanker Company to be launched on the Wear during 1950 was the *British Birch*, of 8,000 tons gross, the first of two similar ships building by Sir James Laing & Sons, Ltd. Another collier for the British Electricity Authority entered the water from the yard of William Pickersgill & Sons, Ltd., this being the builders' fifth vessel of 1950 for the same owners. An export ship of 6,000 tons gross for Dutch owners, the *Callisto*n, was launched by Short Brothers, Ltd.

There has been little handing-over activity on the Wear during the past month, but a notable ship commissioned is the 7,500 tons gross cargo liner *Teucer* for Alfred Holt's Blue Funnel Line, building by Joseph L. Thompson & Sons, Ltd. This ship was originally ordered by the Silver Line and launched as the *Silverlaurel*, being subsequently sold to the present owners. There should be a good start to the 1951 delivery output with the handing over this month of the luxurious Portuguese liner *India*, building by Bartram & Sons, Ltd. The *India* was the Wear's first 1950 launch. Other Wear-built ships well advanced at the fitting-out quays include the 8,700 tons gross tanker *British Builder*, while the same builders, William Doxford & Sons, Ltd., have the sister ship *British Craftsman* also fitting out. Another vessel which has been completed is the 5,500 tons gross cargo ship *King City* at the same yard.

On the Tyne there are seven vessels fitting out including two big liners. The 16,100 tons gross French ship *Provence* is expected to be ready for trials from the yard of Swan, Hunter & Wigham Richardson, Ltd., early this year. The other liner, the 14,500 tons gross Furness Withy cruising liner *Ocean Monarch*, is also well advanced in the fitting-out stage at the yard of Vickers-Armstrongs, Ltd., Walker-on-Tyne. A vessel due for early trials is the Hawthorn, Leslie-built Athel Line tanker *Atheldutchess*, of 9,500 tons gross.

Orders for Dry-Cargo Ships

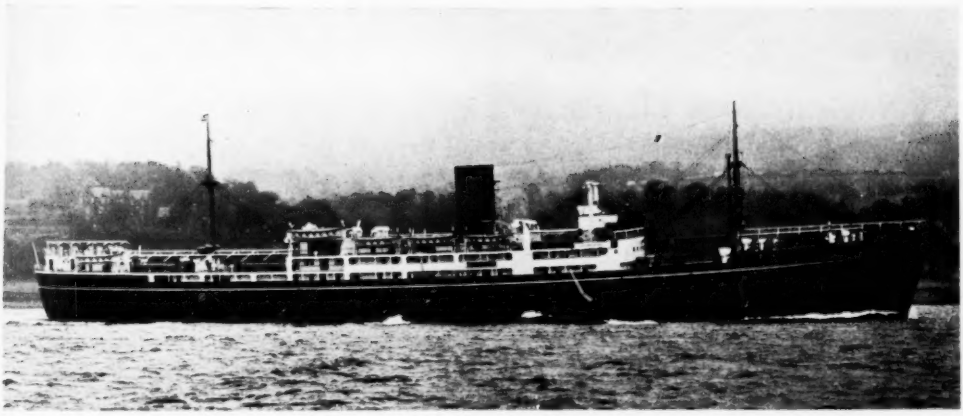
As a result of the volume of orders for new tonnage which has reached Tyne and Wear yards during the last half of 1950, full employment is assured at most yards until 1952, and 1953 in some cases. More orders have arrived during the past few weeks, and the position is now that Wear firms have booked on the aggregate four times the amount of tonnage ordered during 1949, with Tyne yards' total tonnage being over three times the previous year's total. Another pleasing feature is that the accent on tanker tonnage has not been so great in recent orders, and the revival of interest in dry cargo ships is giving much satisfaction. On the Wear, Bartram & Sons, Ltd., booked orders during the past month for two cargo ships, each of 10,000 tons d.w., for Swedish owners, apart from another cargo vessel of the same tonnage for the United British Steamship Co., Ltd. William Doxford & Sons, Ltd., have received an order for two cargo ships each of 5,500 tons gross from Morel, Ltd., London, while another cargo ship order is that booked by Short Brothers, Ltd., from the Newcastle firm of Thomasson Shipping Co., Ltd., for a vessel of 10,000 tons d.w. Another Newcastle firm, Hall Brothers Steamship Co., Ltd., are to have a tanker of 16,400 tons d.w. built by Joseph L. Thompson & Sons, Ltd., while S. P. Austin & Son, Ltd., will construct a collier of 1,620 tons d.w. for the Wallarah Coal Co., Ltd., of London and Sydney. Two Tyne yards have received orders during the past month, John Readhead & Sons, Ltd., South Shields, booking a contract from Strick Line, Ltd., for two cargo ships each of 10,000 tons d.w., and an order for a tanker of 18,000 tons d.w. being received by Swan, Hunter & Wigham Richardson, Ltd., from Norwegian owners.

Thornycroft Motor Yacht for Export

A motor yacht by John I. Thornycroft & Co., Ltd., was demonstrated on the Thames recently before being dispatched to the United States. It is a twin-screw cruiser, with a length of 40 feet, designed to comply with the United States Coast Guard regulations. The story of this order is interesting. The boat has been built for Dr. W. B. Mumford, an Englishman on the permanent secretariat of the United Nations, who lives in New York. A keen yachtsman, he already owns an American-built boat, but felt that the best class of British workmanship could produce something more to his liking. He therefore put down his ideas for an ideal boat on paper, and engaged an American naval architect to work these up into a sketch design complying with all the American regulations. This was sent to Thornycroft's, who produced the final drawings.

The boat is being shipped to Nassau, Bermuda, where Dr. Mumford will meet it and sail it to New York. He was anxious that this example of British workmanship should receive publicity in the United States, and Lieut.-Cdr. W. R. Seward, manager of Thornycroft's export sales division, will cruise from Miami to New York in the boat, calling at ports on the way to demonstrate it.

The boat itself is an attractive design. It is beamy for its length, and twin rudders give it exceptional manoeuvrability. The main saloon is situated amidships, with the two motors, Thornycroft Type RTR 4 diesels, beneath it, accessible through removable panels in the deck. Forward of this is a galley, toilet, and cabin with two berths, and abaft it a large double cabin and a second toilet. The main steering position is on deck above and abaft the saloon, inside which there is a secondary position.



PASSENGER AND CARGO LINER "CHUNGKING"

THE FIRST OF TWO MOTORSHIPS FOR FAR EASTERN SERVICE

THE MOTORSHIP *Chungking*, which has recently been delivered by Scotts' Shipbuilding & Engineering Co., Ltd., Greenock, is the first of two passenger and cargo liners designed for the Far Eastern services of the China Navigation Co., Ltd., London. In addition to general and refrigerated cargo, these vessels have accommodation for first and third class, as well as deck, passengers.

The principal characteristics of the *Chungking* and her sister ship are as follows:—

Length overall	477 ft. 11in.
Length b.p.	450 ft.
Breadth moulded	62 ft.
Depth moulded to upper deck	35 ft.
Gross tonnage	9,398 tons
Net tonnage	5,332 tons
Deadweight capacity	8,910 tons
Loaded draught	25 ft.
General cargo capacity (bale)	425,746 cu. ft.
Refrigerated cargo capacity at 10 deg. F.	10,200 cu. ft.
Passengers:	
First class	48
Steerage	320
Deck	265
Fuel oil capacity	926 tons
Fresh water	1,037 tons
Deep tank (ballast)	547 tons
Speed in service	15 knots
Horsepower	6,500 b.h.p.
R.p.m.	115 r.p.m.

The ship has three complete decks, forecastle deck, combined promenade and poop deck and boat deck. All weather decks except the fore deck are sheathed with teak. There are five holds, a deep tank abaft the engineroom space, and a large cross bunker forward of the engineroom space. The double bottom is divided into oil fuel, water ballast, fresh and feed water tanks.

First-class passengers are carried on the promenade deck and the upper deck in two-berth cabins, and third-class passengers in cabins on the main deck, with messroom accommodation, etc., on the upper deck. The first-class public rooms were designed by A. McInnes Gardner & Partners, and all work carried out by the builders, with upholstered furniture and soft furnishings supplied by Rowan & Boden, Ltd., and floor coverings supplied and laid by Korkoid Decorative Floors, Ltd. The first-class dining saloon, seating 44 and stretching the width of the ship, is beautifully panelled in stripey Scotch elm, the glazed doors, sideboard and serving table panels in elm burr veneer. Pantry service is through two screened doors on either side of the central sideboard.

At the after end of the first-class accommodation, there is a lobby and a main stairway panelled in cherrywood veneer, leading to a cardroom and lounge on the port and starboard side of the promenade deck respectively. The cardroom is panelled in paldao veneer with door frames and trimmings of eucalyptus burr. The card tables have reversible tops with birds' eye maple "Formica" on one side and beige baize on the other. The lounge is panelled in pearwood with cherry burr door frames. Both these rooms are decorated with original Chinese paintings. Between them is a serving bar and pantry. Approached by a thwartship stairway in the lobby outside these two rooms there is a verandah lounge, at the after end of the boat deck. This cool and attractive room is fitted with "Esavian" teakwood folding doors on three sides, giving a clear view over the rails on both sides of the ship, and also aft.

There are three two-berth cabins on the promenade deck, each with private bathroom, and 21 two-berth cabins on the upper deck, of which six have private shower-baths attached. Most of these cabins communicate with each other through sliding doors with Hillaldam "Flyaside" Panther runners. The cabins are furnished in light oak with cot beds, dressing table, three-quarter length mirror, washbasin and fitted wardrobe. Fittings generally are of "Roanoid" or burnt-bronze finish. There is a "Silent Call" system for service. The officers, whose cabins are on the promenade deck, have their own dining room and smokeroom on the forward end of this deck.

Third-Class Accommodation

The third-class accommodation consists of 8, 10 and 20-berth cabins on the main deck, with messroom, galley and sanitary accommodation on the upper deck, and is furnished and equipped throughout to "Simla" Rules standards. Deck passengers can also be carried in No. 5 upper tweendeck. A Thermotank ventilating and heating installation serves all crew and passenger accommodation. As the ship is intended for tropical service, a high standard of air changes is specified, and air delivery is by punkah louvres throughout, it having been found in practice that the air disturbance this maintains is more suitable for the tropics than the draughtless delivery of diffusers.

The electric galley equipment is supplied by Henry Wilson & Co., Ltd., and the steam galley equipment by William Green & Co., Ltd. Sanitary equipment is supplied by Shanks & Co., Ltd. There is a broadcast and public address system throughout the passenger accommodation, built by the Trix Electrical Co., Ltd.

The deck equipment includes an electrically-driven windlass with two cable holders for 2 7/16 in. stud-link cable, driven by a totally-enclosed watertight motor mounted on the windlass soleplate, supplied by Emerson Walker, Ltd., with "Tayco" stud-link cable and "Tayco" lugless shackles and Hingley stockless anchors. There is one 30-ton derrick at the foremast, and four 10-ton derricks, two 7-ton, four 5-ton and two 2-ton derricks, with Clarke, Chapman electric winches, serve the five matches. All weatherdeck hatches have MacGregor steel rolling and pivoting hatch covers. In No. 4 lower tweendeck there is a 1-ton Coles' travelling electric hoist block, supplied by Steels Engineering Products, Ltd., to facilitate the loading of general cargo through the main hatch into the deep tanks.

The Hastie steering gear is of electro-hydraulic type on the "Hele-Shaw" Martineau principle, with two Hele-Shaw

First-class lounge

First-class dining saloon

pumps each driven by a Laurence, Scott electric motor of 10 h.p., and four hydraulic rams acting on a double-armed steel tiller. A telemotor installation of the latest type is fitted for controlling the gear by transmitter pedestal on the navigating bridge. Local mechanical control is provided at the gear and also at a mechanical control pedestal on the poop. The engineroom telegraphs are electric, supplied by Chadburns, Ltd.

Lilley's QED type standard and steering compasses are fitted, and S. G. Brown's type "A" master gyro compass, with bearing and steering repeaters and connection to radar console. The gyro compass also operates an S. G. Brown automatic course recorder. The radar set is Metropolitan-Vickers' "Seascan" of the latest type, and this and all wireless and direction finding equipment was supplied and installed by Siemens Bros. & Co., Ltd. Kelvin & Hughes' multiphase XXIB echo sounding equipment is installed, and Walker's "Trident" electric log. Kent "Clear View" screens are fitted in the wheelhouse. There is a Clifford & Snell "Loudaphone" system of communication between the wheelhouse and the main control points, including boat stations and intercomm. telephone installation supplied by the Telephone Manufacturing Co., Ltd. A Clifford & Snell "Loudhailer" is fitted in the wings of the bridge.

There are ten aluminium alloy lifeboats with a total capacity of 6,000 cu. ft., built by Hugh McLean & Sons, Ltd., mounted on Schats' deck gravity davits except in way of the verandah lounge, where clear deck gravity davits are installed, giving unobstructed access to the rail. In the officers' and first-class accommodation there is a Mather & Platt sprinkler system. For all cargo and other enclosed spaces there is a Pyrene smoke detection and CO$_2$ distribution system. Fire extinguishers throughout the ship are "Foamite." As is customary in ships trading regularly in Far Eastern waters, the vital parts of the ship, engine room, bridge and officers' accommodation, are protected against piracy by steel plates and grilles, and provision is made for the carriage of an armed guard.

There are two insulated chambers of about 5,000 cu. ft. in No. 3 lower tweendeck, designed for temperatures down to 10 deg. F. The machinery was supplied by J. & E. Hall, Ltd., and insulation was carried out by the Miller Insulation Co., Ltd. The domestic refrigerator installation, also supplied by J. & E. Hall, serves a total capacity of 1,200 cu. ft. frozen and chilled space, and consists of "Hallmark" vertical automatic marine freon compressors with direct expansion grids fitted on the sides and overhead of the chambers with thermostatic control and high pressure cutout. All pantries and bars are equipped with "Hallmark" marine domestic automatic refrigerator cabinets of appropriate size, and there is a 50-lb. ice-cube maker in the bar.

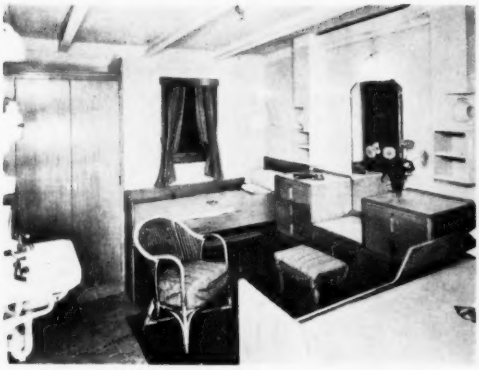
Description of Machinery

The main propelling unit, which was constructed by Scotts' Shipbuilding & Engineering Co., Ltd., consists of a single-screw Doxford type 6-cylinder opposed-piston reversible oil engine of 6,500 b.h.p. at 115 r.p.m. in service. The engine has three scavenge pumps, and these are lever driven from the crossheads of the three after bottom piston rods. The fresh and salt water cooling pumps and the forced lubrication pumps are electric motor driven pumps separate from the main engine.

For this size of engine the Michell thrust block is separate, and is bolted to the engine bedplate and to the tank top. The thrust shaft is also a separate short forging and is bolted to the crankshaft by flange coupling. The after coupling of the thrust shaft carries the electrically operated turning gear wheel which also forms the after flywheel. At

First-class verandah lounge

First-class card room



First-class two-berth stateroom

Officers' smokeroom

the forward end of the engine a flywheel is provided which incorporates a Doxford-Bibby detuner. The main engine is provided with Aspinall visual and aural alarms in connection with the fresh water, salt water, and lubricating oil systems. Each alarm will operate in the event of loss of pressure in the circuit to which it is connected.

In the shaft tunnel the shafting is carried in eight Michell bearings, the aftmost one of which is provided with a trailing face. The propeller is four bladed, right hand, and is of high tensile bronze. It is 16 ft. 6 in. in diameter with a varying pitch and is designed to give the vessel a speed in service of 15 knots when fully loaded. As usual for these owners, the propeller shaft is provided with B.R. Vickers' arrangements, including pump and tank for supply of lubricant to the shaft.

Auxiliary Machinery

For providing electric current for lighting and power, four 6-cylinder Mirrlees vertical four-stroke airless injection diesel generators are installed, the dynamos being of Brush Electrical manufacture. The output of each generator is 175 kW at 220 volts D.C. when driven at 550 r.p.m. The cylinder jackets are circulated with fresh water by means of a Drysdale upright pump driven by an Electro Dynamic Construction Co. motor of 5.1/2/6 h.p. at 1,250 to 1,750 r.p.m. For cooling the auxiliary engine fresh water circulating system two Serck coolers, one working and one standby, are provided. To supply current for emergency lighting, etc., a separate generator is fitted at boat deck level. This is of Lister make with dynamo by Mawdsley and is a 6-cylinder set developing 52 b.h.p. continuously at 1,000 r.p.m., the dynamo output being 30 kW at 220 volts D.C.

Two Weir three-stage air compressors are fitted for charging the two main engine starting air reservoirs, and are driven at 585 r.p.m. by Laurence Scott motors at 78 h.p. In addition, an auxiliary air reservoir is fitted. This is charged from the main reservoirs through an Auld reducing valve, and supplies air to the "Tyfon" whistles. In addition air connections are taken from the auxiliary reservoir to the steam driven oil fuel transfer pump and the auxiliary boiler feed pump to provide a secondary means of operation. This reservoir also supplies air to the "Stream-Line" filters.

Lubricating oil is supplied to the main engine system by two Drysdale "Vertoil" pumps driven by Allen motors of 15/20 h.p. at 950 to 1,300 r.p.m. Each pump is capable of supplying the total quantity of oil required, which is 70 tons per hour to 40 lb. per sq. in. with 10 ft. suction head. The pumps discharge through Auto-Klean strainers—one for each pump—to either or both of a pair of Serck lubricating oil coolers placed vertically and which are interconnected by means of a duplex rotary control valve. Each half of the dual cooler can deal with 50 tons of oil when required. The coolers normally reduce the temperature of 70 tons of lubricating oil per hour from 126 to 112 deg. F. when supplied with 150 tons of sea water per hour at 90 deg. inlet temperature. After leaving the coolers the oil passes through a Philips magnetic filter before joining the main engine rail. An Alfa-Laval purifier of 300 gallons per hour capacity is fitted, driven by a Metropolitan-Vickers electric motor of 2½ h.p. and with a pump provided on the discharge side. Lubricating oil can be bled from main engine system, purified, and returned to double-bottom drain tank continuously when desired. The main engine drain tank oil can be pumped up to a 1,400 gallon capacity cleaning tank, clarified by heating coil and led back to drain tank through the purifier. The auxiliary engine oil sumps can also be pumped up to the cleaning tank by means of a hand pump fitted on each set, the oil returning to its respective sump *via* the purifier.

Freshwater for cooling main engine pistons and jackets is supplied by two Drysdale "Upright" centrifugal pumps (9 in. by 9 in.) each of which is capable of coping with the whole duty. The pumps are driven by W. H. Allen & Co.'s motors of 40/64 h.p. at 1,300 to 1,600 r.p.m. and each pump can deliver 350 tons of fresh water per hour against a pressure of 45 lb. per sq. in with 7 ft. suction lift. The pumps discharge to a Serck cooler capable of cooling 300 tons of fresh water per hour from 150 to 135 deg. F.

Engineroom Pumps

Sea water for circulating main engine lubricating oil and fresh water coolers, also for circulating the lubricating oil coolers of the diesel generators and the jacket water coolers of the diesel generators and the air compressors, when the vessel is at sea, is provided by a Drysdale "Upright" (10 in. by 10 in.) centrifugal pump, driven by a W. H. Allen & Co. motor of 35/45 h.p. at 1,200 to 1,500 r.p.m. This pump delivers 450 tons of sea water per hour against a total head of 50 ft. Sea water circulating duty can also be undertaken by the ballast pump, which is a Drysdale "Rotary Centrex" centrifugal pump driven.

Two oil fuel transfer pumps are provided. One is a Drysdale "Vertoil" with W. H. Allen electric motor, having a duty of 25 tons per hour against a head of 95 ft. The other is a Weir single-cylinder steam unit which delivers 15 tons of fuel per hour against a pressure of 40 lb. per sq. in., and can be operated also by compressed air.

Distilled water is used for circulating the main engine pistons and jackets also for cooling the fuel injection valves, relief valves and the starting air valves in the engine cylinders. For making up losses a fresh water distiller made by Hocking & Co. is provided, and this has also a connection to the ship's fresh water storage tanks. The distiller produces 10 tons of fresh water per 24 hours when supplied with steam at 100 lb. pressure.

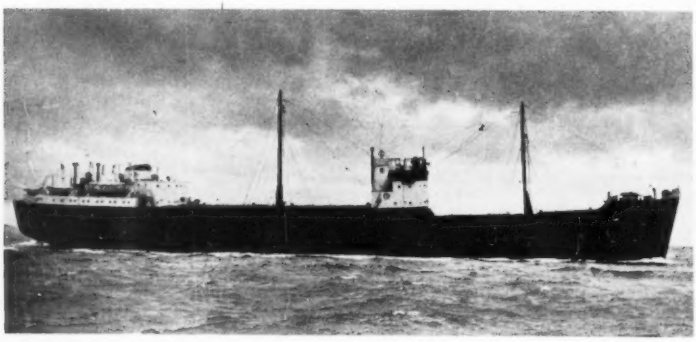
The refrigerating machinery is of J. & E. Hall manufacture and comprises two 6½ in. by 5 in. twin-cylinder methyl chloride/Freon 12, monoblock machines running at 450 r.p.m., each belt driven by a 25 h.p. electric motor of Electro Dynamic Construction Co.'s make, with automatic starters. In the same space nearby are two shell and tube condensers each having a surface of 80 sq. ft. In the separate evaporator room are two submerged-coil type evaporators, each with about 1,000 ft. of 1¼ in. bore piping, giving about 396 sq. ft. effective surface, one evaporator per machine. Fitted in the evaporator insulated room are also three brine pumps, the motors being outside in the refrigerating machinery room. The brine pump motors are of 3 h.p. each and each pump can deliver 4,500 gallons of brine per hour at a pressure of 25 lb. per sq. in. Two pumps are required at full load, the other acting as standby.

Coastal Tanker "Lind"

The single-screw motor tanker *Lind* (*left*) has been delivered to Skibs A S Oljetransport, of Bergen, by Ekenbergs Varv A B, Stockholm. Of about 1,255 tons gross, she carries a deadweight of 1,730 tons. Her principal dimensions are 233 ft. 7 in. length o.a., 215 ft. 11 in. b.p., 35 ft. 5 in. breadth and 15 ft. 11 in. depth. She is fitted with a cruiser stern and her propelling machinery is arranged aft. A speed of 11½ knots is maintained by a 6-cylinder two-stroke, single-acting Polar Atlas diesel engine. This engine was built by A B Atlas-Diesel, of Stockholm, and develops 960 h.p.

Salvage Tug for South Africa

Built at Port Glasgow by Ferguson Brothers (Port Glasgow) Ltd., the twin-screw ocean-going salvage tug *F. T. Bates* has been completed for the South African Railways and Harbours Administration. Of about 750 tons gross, she is, together with the other vessels of the owners' fleet, among the most powerful and well-equipped of her type in the world. She has dimensions of 165 ft. length, 35.1 ft. breadth and 16 ft. depth. The approximate steaming range of this vessel is 1,800 miles, enabling her to undertake salvage work at long distances from her base. Her twin screws are driven by triple-expansion steam engines. These engines were supplied by the shipbuilders and develop a total of 3,000 i.h.p.



Motor Collier "Waterland"

On completion of speed and power trials, the single-screw motor collier *Waterland* was recently handed over to her owners, the Shipping & Coal Co., Ltd. Built by the Burntisland Shipbuilding Co., Ltd., the *Waterland* is specially designed for the transport of coal and coke from northern ports to London and from British ports to the Continent. She has a gross tonnage of 2,837 and carries a deadweight of 4,050 tons on a moulded draught of 19 ft. 10½ in. Her dimensions are 302 ft. length b.p., 44 ft. 6 in. breadth and 21 ft. 10 in. depth moulded. There are four large cargo holds served by self-trimming hatchways. Supplied by John G. Kincaid & Co., Ltd., the main engine comprises a 5-cylinder two-stroke single-acting Harland-B. & W. type diesel developing 1,500 b.h.p.

Cargo Motorship "Las Palmas"

A single-screw motor cargo vessel recently completed by Deutcshe Werft, Hamburg, is the *Las Palmas*, built to the order of Oldenburg-Portugiesische Dampschiffs. Rhederei. The *Las Palmas* is a vessel of some 2,300 tons gross and has a deadweight of 3,200 tons on a draught of 18 ft. ½ in. She has dimensions of 329 ft. length o.a., 301 ft. 10 in. b.p., 47 ft. 7 in. breadth moulded and 26 ft. 11 in. depth to shelter deck. She is propelled by two 9-cylinder four-stroke single-acting M.A.N. diesel engines geared to a single shaft, which provide her with a speed of 12 knots in loaded condition. The *Las Palmas* is the first of three sister ships ordered by the same owners. The other two vessels, *Tenerife* and *Tanger*, are at present fitting out

NEW CONTRACTS

Yards in Great Britain and Northern Ireland

Shipowners	No. of Ships	Type	Approximate Tonnage: Gross	Approximate Tonnage: Deadweight	Dimensions (ft.)	Speed (knots)	Propelling Machinery	Total h.p.	Engine Builders	Shipbuilders
Anglo-Saxon	2	Lighters	310 (each)	—	—	—	Crossley diesel	420	—	Richard Dunston, Thorne
A.S Ocean (John P. Pedersen & Son), Oslo	1	Tanker	—	15,000	—	—	Diesel	—	—	Swan, Hunter & Wigham Richardson, Walker
Chr. Salvesen & Co.	1	Quick-freeze trawler	—	—	240 b.p.	—	4-cyl. Doxford diesel	—	Shipbuilders	John Lewis

Commonwealth and Foreign Yards

French owners	1	Asphalt tanker	—	2,700	—	11.5-12	Werkspoor diesel	1,500	—	Scheeps. Gebr. van der Werf, Deest
J. Lauritzen, Copenhagen	2	Refrig. cargo	—	4,000 (each)	—	17.5	Tw.-scr. B. & W diesel	8,500 (each)	—	Aalborg Skibs.
J. Lauritzen	1	Refrig. cargo	—	4,000	—	17.5	Tw.-scr. B. & W diesel	8,500	—	Elsinore S.B.
Det Ostasiatiske Kompagni, Copenhagen	1	Cargo	—	10,000	445 · 61 · 29.8	—	Diesel	6,450	—	Deutsche Werft, Hamburg
Gulf & Atlantic Shipping Co., Panama	1	Cargo	—	4,250	335.3 · 49.2 · 24.9	—	Diesel	4,000	—	Deutsche Werft
Franz Haniel & Cie., Duisburg	1	Cargo	1,930	3,200	—	—	Diesel	—	—	Deutsche Werft
British owners, Nigeria	3	Passenger	—	—	39.4 · 11.5	—	Diesel	—	—	Pitea yard, Sweden
Gothenburg Harbour Board	1	Vehicle ferry	—	—	—	—	—	—	—	Nya A.B. Falkenbergs Varv*

* Nya A.B Falkenbergs Varv has signed a contract for the completion of the ferry from the old shipyard company which got into financial difficulties and was taken over by a new company. The vessel is expected to be launched in January and completed by May 15.

LAUNCHES

Yards in Great Britain and Northern Ireland

Date	Shipowners	Ship's Name and/or Yard No.	Type	Approximate Tonnage: Gross	Approximate Tonnage: Deadweight	Dimensions (ft.)	Speed (knots)	Propelling Machinery	Total h.p.	Engine Builders	Shipbuilders
Dec. 15	United Africa Co.	*Richard Landon* (1441)	—	260	—	—	—	Diesel	—	—	Wm. Denny
Dec. 20	Dundee, Perth & London Shipping Co.	*London* (336)	Coastal cargo liner	—	800	201 b.p. · 36.25 · 21.08	12	Sin.-scr., 8-cyl., 2 str., diesel	1,150	British Polar Engines	Burntisland S.B.
Dec. 28	Clan Line	*Clan Sutherland*	Cargo liner	8,450	11,100	476 b.p. · 66 · 40.66	16.5	Sin.-scr. dble.-red. geared turbines	10,340	Parsons Marine	Greenock Dockyard
Dec. 28	Bowring S.S. Co. (on long-term charter to Regent Pet. Tankship Co.)	*Regent Caribou*	Tanker	11,800	17,500	516 b.p. · 70.5 · 38	13	Doxford diesel	5,600	David Rowan	Blythswood S.B.

TRIAL TRIPS

Yards in Great Britain and Northern Ireland

Date	Shipowners	Ship's Name and/or Yard No.	Type	Approximate Tonnage: Gross	Approximate Tonnage: Deadweight	Dimensions (ft.)	Speed (knots)	Propelling Machinery	Total h.p.	Engine Builders	Shipbuilders
Dec. —	Australind S.S. Co.	*Ajana* (489)	Cargo	5,850	9,600	438 · 58.2 · 26	—	Sin.-scr., 6-cyl., 4-str. Harland-B. & W. diesel	—	Kincaid	Wm. Hamilton
Dec. —	Per Gjerding, Bergen	*Binta* (1405)	Tanker	8,250	12,000	460 b.p. · 59 · 34.83	—	Sin.-scr., 6-cyl., 4-str. B. & W. diesel	—	Shipbuilders	Harland & Wolff, Govan
Dec. —	Fred Olsen & Co., Oslo	*Bolette* (1406)	Tanker	16,900	24,000	623.5 o.a. and 580 b.p. · 78 · 42.5	—	Sin.-scr., 7-cyl., 2-str. B. & W. diesel	—	Shipbuilders	Harland & Wolff, Belfast
Dec. —	Hudson S.S. Co.	*Hudson Sound* (469)	Collier	2,524	3,370	305 o.a. · 42 · 21	10.5	Sin.-scr., tr.-exp. steam	—	Shipbuilders	Ailsa S.B.
Dec. —	Hunting & Son	*Loganfield* (1418)	Tanker	8,250	12,000	487.5 o.a. and 460 b.p. · 59 · 34.83	—	Sin.-scr., 6-cyl., 4-str. B. & W. diesel	—	Shipbuilders	Harland & Wolff, Belfast
Dec. —	Cia. Anon. Venezolana de Nav., Caracas	*Orinoco* (1986)	Pass. & cargo	350	—	133.8 · 33 · 6.4	—	Tw.-scr., 7-cyl., 2-str. diesel	—	British Polar Engines	Yarrow & Co.
Dec. 19	British Tanker Co.	*British Splendour* (1789)	Tanker	11,233	16,145	547 o.a. · 69.5 · 37.5	13.75	Sin.-scr., 6-cyl., 2-str. Doxford diesel	6,400	Wallsend Slipway & Eng. Co.	Swan Hunter & Wigham Richardson, Wallsend

Commonwealth and Foreign Yards

—	Cie. Maritime de Transports de Goudron, Paris	*Cap Cos*	Coaster	486	—	186.5 · 25.9 · 10.2 (draught)	10	Werkspoor diesel	435	—	Scheeps. v.h. de Groot & van Vliet Slikkerveer
—	A. P. Moller, Copenhagen	*Gerd Maersk*	Tanker	12,500	17,900	537.5 · 70.2 · 39.2	—	Sin.-scr., 9-cyl., 2-str. B. & W. diesel	—	Shipbuilders	Mitsui S.B. & E. Co., Tamano
Nov. 29	Phs. van Ommeren's Scheepv., Rotterdam	*Sliedrecht* (1013)	Tanker	10,500	16,000	515 b.p. · 64 · 38.5	15	2-str. Sulzer diesel	6,300	—	Lindholmens Varv, Gothenburg
Dec. 1	Rederi A.B. Transoil, Gothenburg	*Trailtank*	Coastal tanker	—	650	134 o.a. · 26.16 · 13.08	—	Diesel	—	—	Marstrands M.V.
Dec. 7	Norsk Hydro-Elektrisk, Oslo	*Hydro* (136)	Ammonia tanker	1,776	1,500	228.3 · 37.5	12.5	Sin.-scr., 5-cyl., 2-str. Nordberg diesel	1,500	—	Naval Dockyard, Horten
Dec. 7	Rederi A.B. Svenska Lloyd, Gothenburg	*Venezia* (408)	Cargo liner	2,000	3,410	318 b.p. · 44.5 · 19.25	14.5	Sin.-scr., 9-cyl., 2-str. B. & W. diesel	3,000	Shipbuilders	Eriksbergs M.V., Gothenburg
Dec. 13	Lorentzen's Rederi Co., Oslo	*Jessie Stove*	Fruit carrier	3,187	2,701	315 b.p. · 47.08 · 29.33	16.5	Sin.-scr., 10-cyl., 2-str. diesel	4,200	Shipbuilders	Burmeister & Wain, Copenhagen
Dec. 20	Sigurd Herlofson & Co., Oslo	*Tank Empress*	Tanker	15,797	24,380	606.3 o.a. and 570 b.p. · 77 · 42.75	14	Sin.-scr., 7-cyl., 2-str. M.A.N. diesel	7,000	Shipbuilders	Kockums M.V., Malmo

MARITIME NEWS IN BRIEF

From Correspondents at Home and Overseas

FOLLOWING the death of Mr. J. W. Bayley, Mr. James R. Fewlass has been appointed chairman of Ellerman's Wilson Line, Ltd. Mr. A. F. Hull has been elected a director. Mr. Fewlass and Lt.-Col. G. W. Bayley continue as managing directors of the company. Mr. Fewlass becomes also the chairman of five other shipping and marine insurance companies associated with the Wilson Line, and is joined as a director on these boards by Lt.-Col. Bayley. Mr. C. L. Smelt, chief accountant of the Wilson Line, is appointed to the boards of Wilsons & North Eastern Railway Shipping Co., Ltd., and The United Shipping Co., Ltd., London. Mr. C. D. Glaves, who has been assistant secretary of the Wilson Line for 17 years, has been appointed secretary of the company.

THE *Rijndam*, launched for the Holland-America Line from one of the slipways of Wilton-Fijenoord, Schiedam, some weeks ago, was the last ship Mr. W. Wilton, manager of these yards, saw launched in his official capacity. At the end of the year he retired, after having served as a manager for 50 years. He will join the board of directors. At a reception in honour of his golden jubilee many speakers, including Mr. D. T. Ruys, and Mr. D. C. Endert, of Rotterdam Dry Dock Company, honoured him.

SIR THOMAS GARDINER has been reappointed vice-chairman of the National Dock Labour Board until March 31, 1951. Owing to his other commitments, Sir Thomas has not been able to accept the chairmanship of the board, but he has agreed to continue to serve as vice-chairman until a new chairman can be appointed.

MR. A. M. H. WARDLAW, who joined France Fenwick (Tyne and Wear), Ltd., in 1923 as an office boy and became secretary and director, has been appointed joint managing director. He is to continue as secretary for the time being.

THE DIRECTORS of Williams Deacon's Bank, Ltd., have elected Sir William Currie a deputy chairman. He has also been elected an extraordinary director of the Royal Bank of Scotland.

THE DEATH has occurred of Mr. Dennis Treverton Jones, partner in the Newport shipowning firm of Richard W. Jones & Co.

* * * *

THE ITALIAN Government is to order a second 25,000-tons liner for the service between Genoa and New York. The liner will help Italy face U.S. competition in the trade between Mediterranean ports and the United States. Italy will also build a 10,000-tons liner for the Italy-Egypt-Levant service, which will link up with the trans-Atlantic service at Genoa. The service from New York to Genoa will take seven days, and that from Genoa to Alexandria 3½ days. As a result, passengers from New York for Egypt will be able to complete the voyage in less than twelve days, as against the 15 days taken by the "Four Aces" liners of American Export Lines.

THE Holland-America Line is working on plans for two new trans-Atlantic liners. They will be both larger and faster than the present flagship, the *Nieuw Amsterdam* (36,667 tons gross). The line's trade has been increasing, particularly to the Gulf of Mexico. Holland-America is running a weekly sailing from U.S. Gulf ports to British, French, Belgian, Dutch and German ports, and new cargo tonnage is being contemplated for this route.

COLONEL J. G. B. BEAZLEY has been elected chairman of the Mersey Docks and Harbour Board in succession to Mr. Edmund Gardner, who retains his seat on the board. Major R. H. Thornton has been elected deputy chairman, and Alderman J. J. Cleary has been elected a member of the board on the nomination of the Minister of Transport.

MR. ROBERT RAINIE, of Harland & Wolff, Ltd., London, has been appointed chairman of the River Thames Dry Dock Proprietors' and Shiprepairers' Association for the fifth year in succession. The vice-chairman is Mr. W. H. Buchannan, manager of R. & H. Green & Silley Weir, Ltd.

GLOVER BROS. (LONDON), LTD., of Bevis Marks House, Bevis Marks, London, E.C.3, have been appointed general agents in the United Kingdom for the Swedish East Africa Line.

IN 1950, Kockum's shipyard, Malmo, Sweden, delivered four cargo liners and seven motor tankers with a total gross tonnage of 105,000 tons. The corresponding figure for 1949 was 96,000 tons gross.

* * * *

BY REASON of ill-health, Mr. G. McLeod Paterson has resigned his position as naval architect of the Cunard Steam-Ship Co., Ltd. Mr. L. McEwan, at present assistant naval architect, has been appointed to succeed him. Mr. Paterson joined John Brown & Co., Ltd., Clydebank, in 1912, and in 1919 he joined the naval architect's department of the Cunard Line, being appointed naval architect in 1924. Mr. McEwan also served his apprenticeship with John Brown's, and joined Cunard in 1919. He was largely responsible for the design of the *Mauretania*.

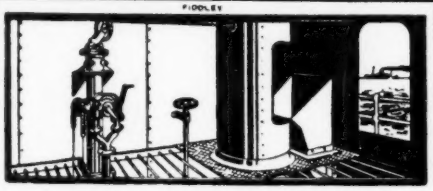
THE REGISTERED addresses of Marconi's Wireless Telegraph Co., Ltd., and The Marconi International Marine Communication Co., Ltd., are now Marconi House, Strand, London, W.C.2. The main business of the companies will continue to be conducted from Chelmsford, as hitherto, but the export department of the Wireless Telegraph company and the contracts division of the marine company will be housed in the Strand building.

SIXTY teemers employed by British Railways at Blyth have lifted a ban on overtime which had delayed the loading of colliers. The men requested a meeting with the employers to discuss wages, and meetings have been arranged.

MR. G. WARD, adjudged the best drawing office apprentice at the Walker Naval Yard of Vickers-Armstrongs, Ltd., has been awarded a degree course in naval architecture at King's College, Newcastle-on-Tyne.

MR. T. A. SIMPSON has been appointed deputy general manager of The Marconi International Marine Communication Co., Ltd. Mr. Simpson joined the company in 1913 as a member of the seagoing operating staff. In 1931 he went to the company's Port Said depot, where he remained until 1935, when he returned to Liverpool. He went to the Marconi depot at Bombay as depot manager in 1938. After returning to the U.K. he was appointed assistant to the general manager (contracts) in 1946, and in 1947 he became contracts manager (deep sea section)

MR. DOUGLAS SMITH is the newly appointed chairman of the Reardon Smith Line, Ltd., in succession to the late Sir W. Reardon-Smith. Mr. Smith is a director of a number of other companies and associations, including Sir William Reardon Smith & Sons, Ltd., Leeds Shipping Co., Ltd., Devon Mutual Steamship Insurance Association, The West of England Steam Ship Owners' Protection & Indemnity Association and The Britannia Steam Ship Insurance Association, Ltd.



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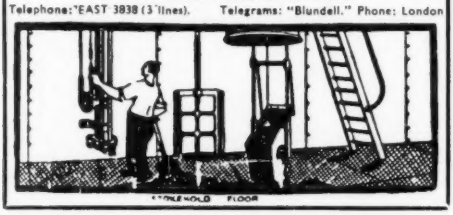

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